

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

TEXTRON INNOVATIONS INC.,

Plaintiff,

v.

SZ DJI TECHNOLOGY CO., LTD.,
DJI EUROPE B.V., SHENZHEN DAJIANG
BAIWANG TECHNOLOGY CO. LTD., and
IFLIGHT TECHNOLOGY COMPANY LTD.

Defendants.

CIVIL ACTION 6:21-cv-00740-ADA

JURY TRIAL DEMANDED

AMENDED COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement in which Plaintiff Textron Innovations Inc. (“Textron Innovations” or “Plaintiff”) makes the following allegations against Defendants SZ DJI Technology Co., Ltd., DJI Europe B.V., Shenzhen Dajiang Baiwang Technology Co. Ltd., and iFlight Technology Company Ltd. (collectively “DJI” or “Defendants”):

THE PARTIES

1. Plaintiff Textron Innovations Inc. is a Delaware corporation with its place of business located at 40 Westminster Street, Providence, Rhode Island 02903.

2. On information and belief, Defendant SZ DJI Technology Co., Ltd. (“SZ DJI”) is a Chinese corporation. SZ DJI’s principal place of business is at the 14th Floor, West Wing, Skyworth Semiconductor Design Building, No. 18 Gaoxin South 4th Ave, Nanshan District, Shenzhen, China. On information and belief, SZ DJI conducts business, either directly or through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. Although

SZ DJI is engaged in business in Texas, it has not designated an agent for service of process in Texas. The Texas Secretary of State, therefore, is an agent for service of process for SZ DJI under the Texas Civil Practice and Remedies Code § 17.044(b). SZ DJI is responsible for the research and development of DJI-branded products imported and/or sold in the United States, including DJI's unmanned aerial vehicle ("UAV") products.

3. On information and belief, Defendant DJI Europe B.V. ("DJI BV") is a Netherlands corporation. DJI BV's principal place of business is at Bijdorp-Oost 6, 2992 LA Barendrecht, Netherlands. DJI B.V. conducts business, either directly or through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. Although DJI B.V. is engaged in business in Texas, it has not designated an agent for service of process in Texas. The Texas Secretary of State, therefore, is an agent for service of process for DJI B.V. under the Texas Civil Practice and Remedies Code § 17.044(b). DJI BV is responsible for selling DJI-branded products in the United States, including DJI's UAV products.

4. On information and belief, Defendant Shenzhen Dajiang Baiwang Technology Co. Ltd. ("DJI Baiwang") is a Chinese Corporation with a principal place of business at 101, 201, 301, 401, 501, Building 12 and 101, 201, 301, Building 13, Baiwangxin Industrial Park, No. 1002, Songbai Rd., Shenzhen, Guangdong, China 518108. On information and belief, DJI Baiwang conducts business, either directly or through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. Although DJI Baiwang is engaged in business in Texas, it has not designated an agent for service of process in Texas. The Texas Secretary of State, therefore, is an agent for service of process for DJI Baiwang under the Texas Civil Practice and Remedies Code § 17.044(b). On information and belief, DJI Baiwang is responsible for manufacturing DJI-

branded products that are offered for sale, sold, or used in the United States, or imported into the United States, including DJI's UAV products.

5. On information and belief, Defendant iFlight Technology Company Ltd. ("iFlight") is a Hong Kong corporation with a principal place of business at Units 910-918 9/F, Building 16W No. 16 Science Park West Avenue Hong Kong Science Park, Pak Shek Kok, Tai Po, New Territories, Hong Kong. On information and belief, iFlight conducts business, either directly or through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. Although iFlight is engaged in business in Texas, it has not designated an agent for service of process in Texas. The Texas Secretary of State, therefore, is an agent for service of process for iFlight under the Texas Civil Practice and Remedies Code § 17.044(b). On information and belief, iFlight is directly or indirectly responsible for the research and development of DJI-branded products that are offered for sale, sold, or used in the United States, or imported into the United States, the manufacture of DJI-branded products that are offered for sale, sold, or used in the United States, or imported into the United States, and/or the offering for sale, selling, use, or importation of DJI-branded products in the United States, including DJI's UAV products.

BACKGROUND OF THE DISPUTE

6. Textron Innovations is a subsidiary of Textron Inc. and holds patents that originate with Textron Inc. or its subsidiaries. One such subsidiary is Bell Textron Inc. ("Bell"). Textron Innovations and Bell are sister companies. The patents asserted in this case originated with Bell and were assigned to Textron Innovations.

7. Bell, based in Fort Worth, Texas, is a pioneer of aerospace technology, and its history spans over 80 years. In 1948, Bell was the first company to develop an aircraft capable of breaking the sound barrier with the Bell X-1 rocket engine-powered aircraft. In the 1960s, Bell played a significant role in NASA's first lunar mission to land men on the Moon. Bell was the first

company to certify a commercial helicopter. And Bell brought advanced tiltrotor systems to the market. Bell's pioneering efforts have been rewarded by the issuance of over 1,400 United States patents.

8. DJI (short for Da-Jiang Innovations) was founded in China around 2006 by Wang Tao, who became the world's first drone billionaire. DJI is a "major player[] in the U.S. consumer UAV market." *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at ¶ 13 (D. Del. Feb. 24, 2021). According to DJI, "[i]n 2019, the Federal Aviation Administration reported that DJI's UAV products constituted more than 75% of the Part 107 unmanned aircrafts registered in the United States." *Id.* Public estimates show that DJI's 2019 revenue was \$2.8 billion. <https://www.bloomberg.com/billionaires/profiles/tao-wang/>.

9. DJI has leveraged Textron Innovations' patents to propel DJI to a market-leading position in the manufacture and distribution of consumer and enterprise drones. Textron Innovations brings this suit to protect its constitutional patent rights against DJI's past and continued infringement.

JURISDICTION AND VENUE

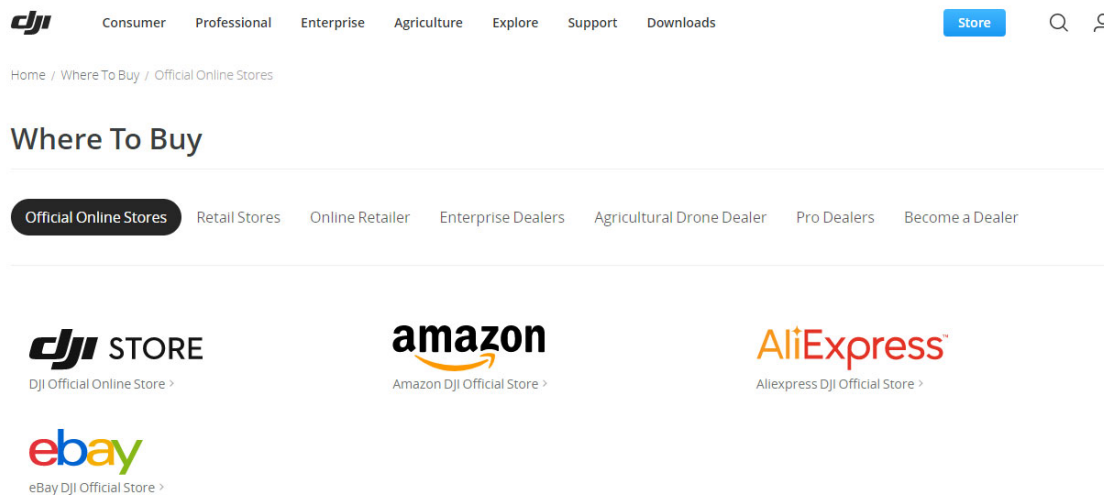
10. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 et seq. Accordingly, this Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

11. This Court has personal jurisdiction over Defendants at least because they (1) have committed acts of patent infringement and contributed to and induced acts of patent infringement by others in this District; (2) regularly did business or solicited business in this District; (3) engaged in other persistent courses of conduct and derived substantial revenue by its offering of infringing products and services and providing infringing products and services in this District; and (4) purposefully established substantial, systematic, and continuous contacts with this District and

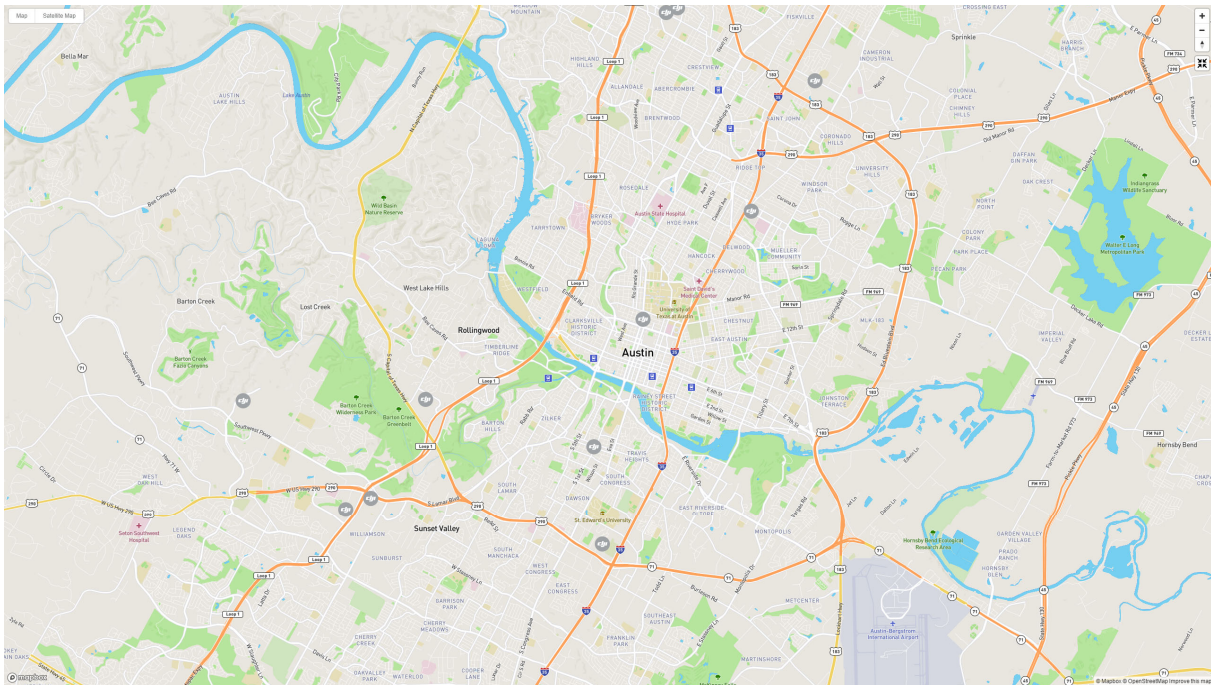
should have reasonably expected to be subject to suit here by its offering of infringing products and services and providing infringing products and services in this District.

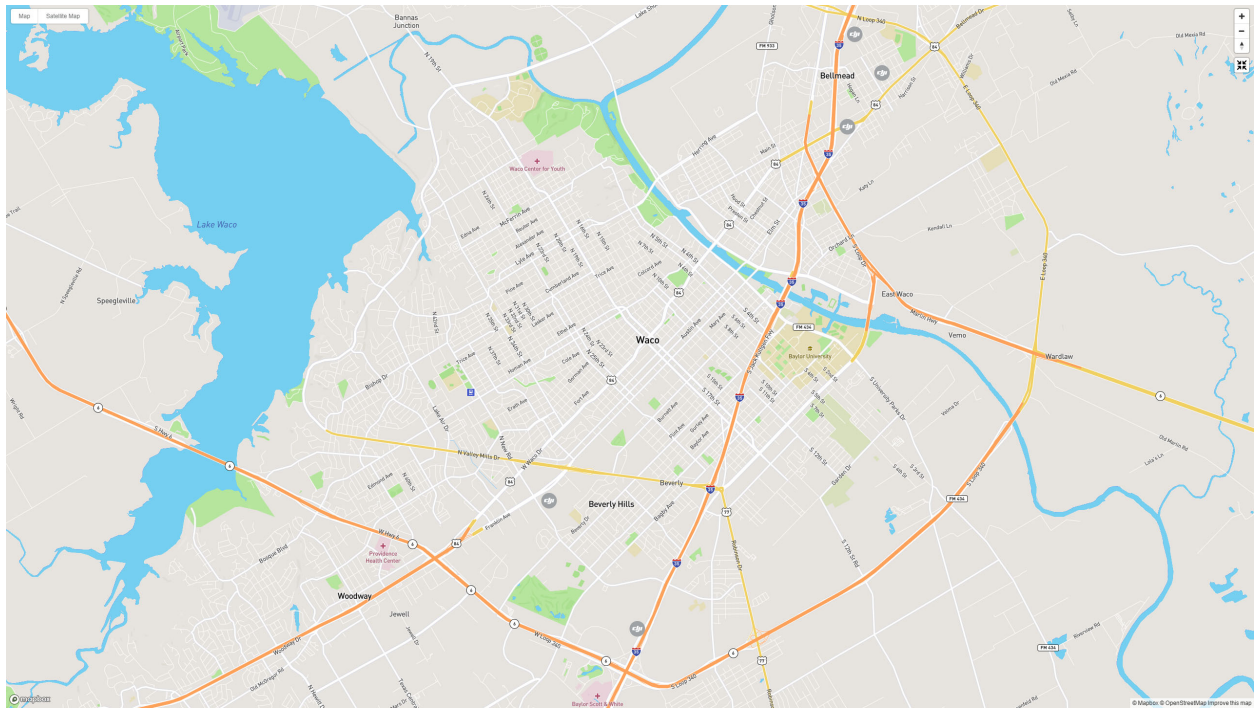
12. In addition to Defendants' own online store at <http://store.dji.com>, Defendants have sold their drone and drone-related products within this judicial district via the following means:

a. Defendants have official online stores with Amazon, AliExpress, and eBay, all of which are available to and accessed by users, customers, and potential customers of Defendants within this judicial district.

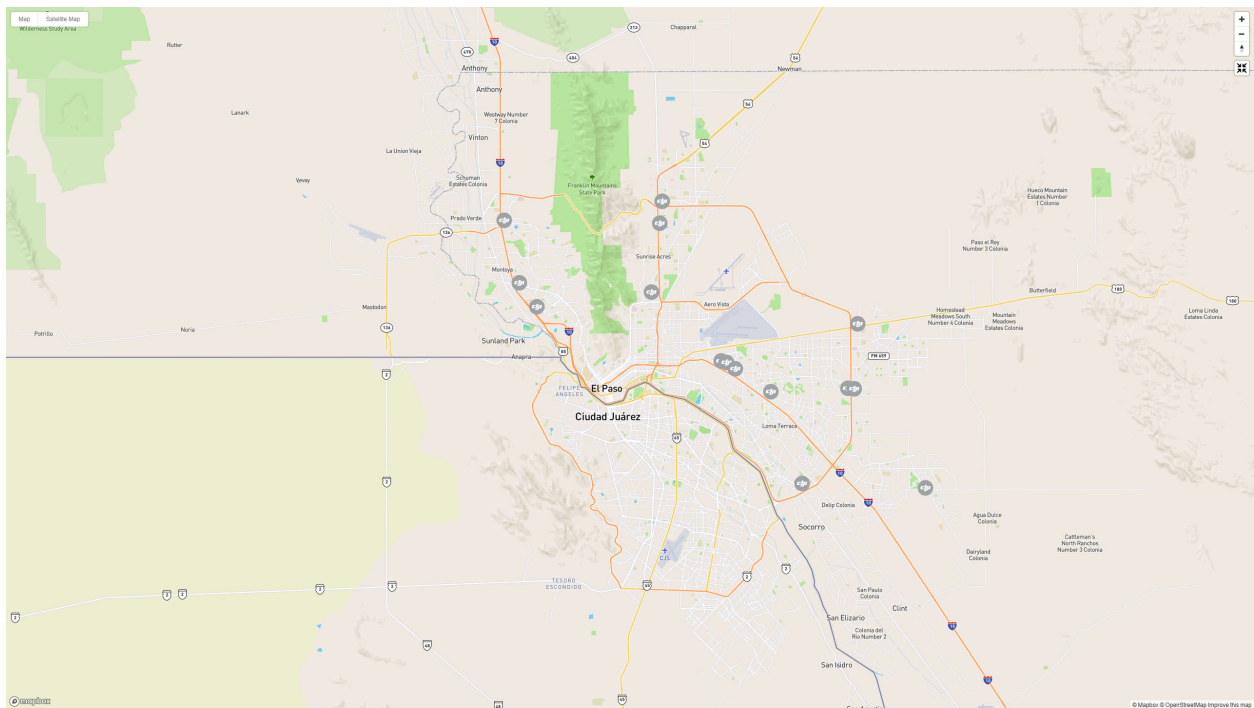


b. In addition to official online stores, Defendants have a wide variety of resellers (indicated by the gray markers on the below maps) and enterprise dealers (indicated by the black markers on the below maps) selling Defendants' drones and drone-related products within this judicial district. Defendants list these resellers and enterprise dealers on DJI's website. Examples of such resellers and dealers located in the Western District of Texas and listed on DJI's website are shown below.

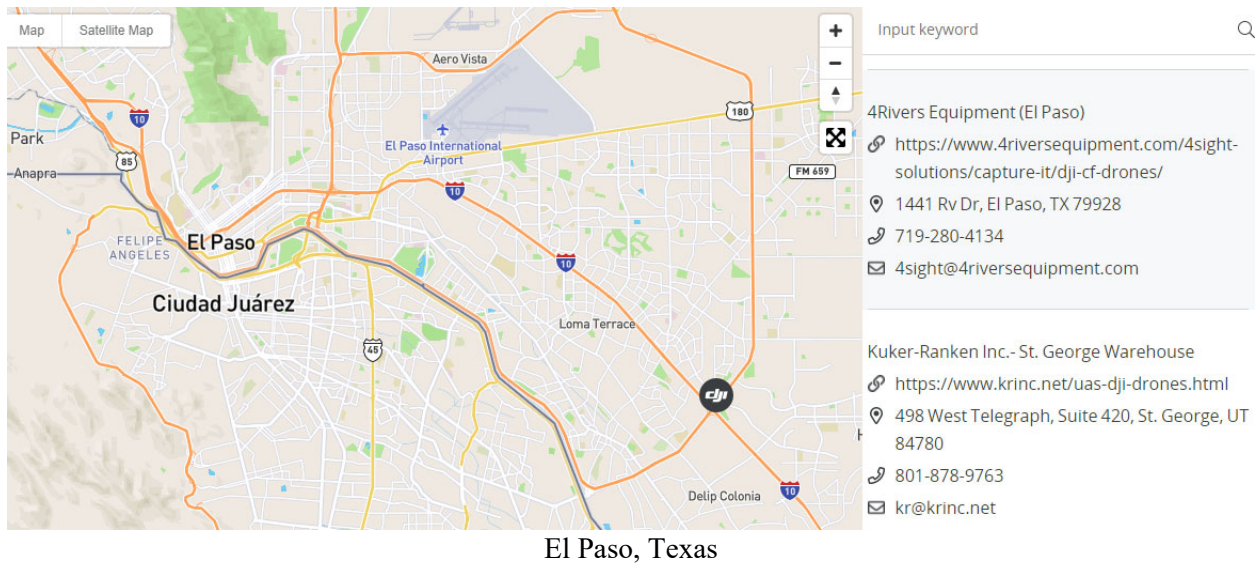




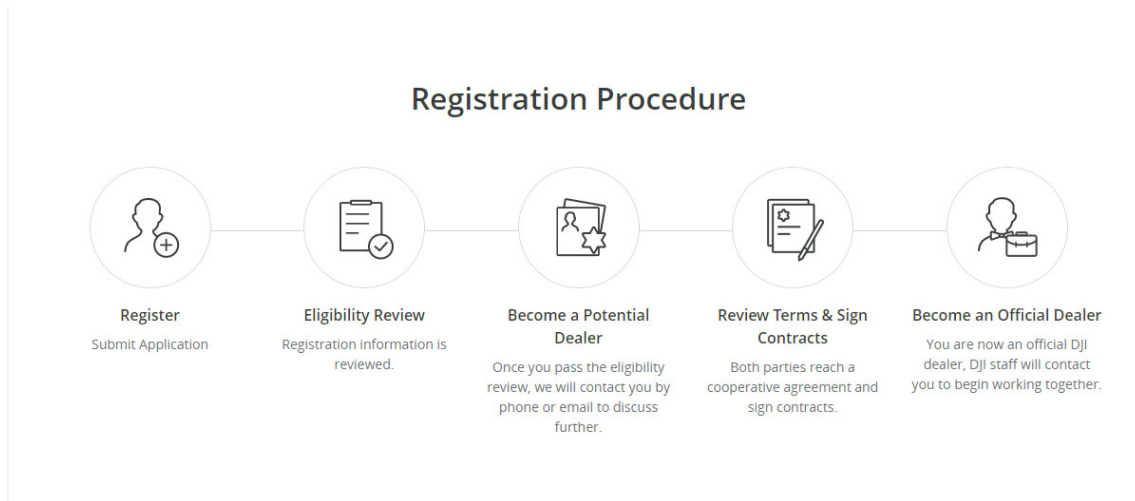
Waco, Texas



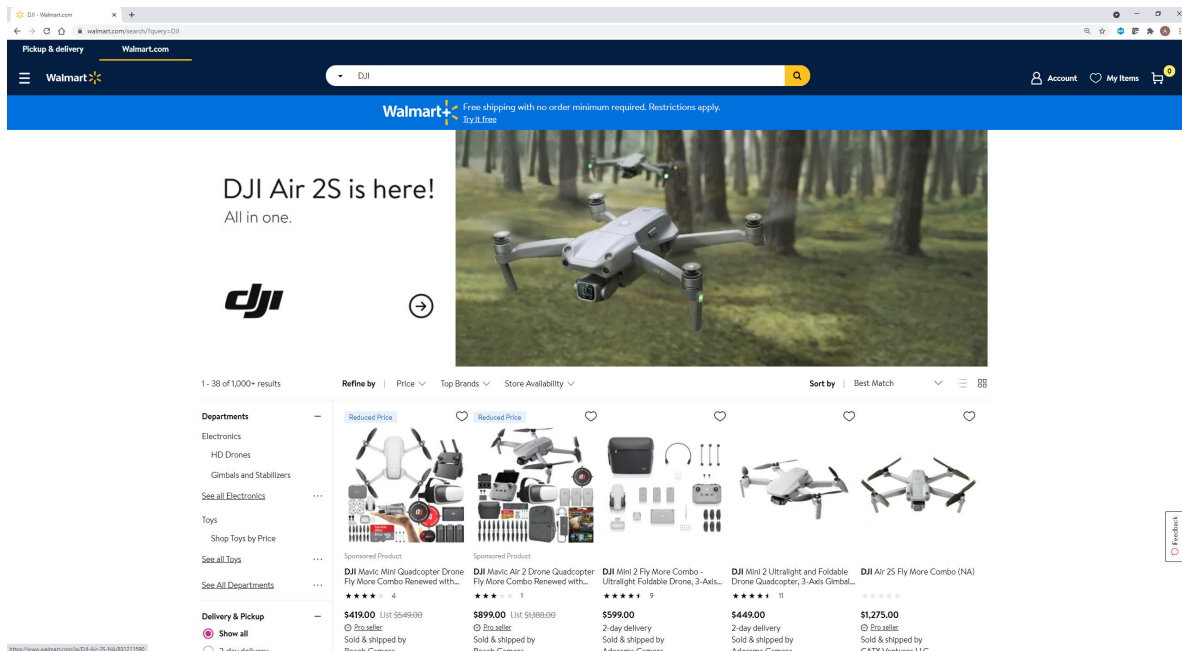
El Paso, Texas



c. Defendants require these dealers to pass a registration procedure. DJI's registration procedure is a multi-step procedure that involves an application from the dealer, DJI's eligibility review of the prospective dealer, a discussion between the prospective dealer and DJI, and a "cooperative agreement" and a "sign[ed] contract[.]" <https://prm.dji.com/>. DJI requires that dealers "strict[ly] adhere" to all of DJI's policies. <https://advexure.com/pages/apply-become-dji-dealer-reseller>. Once the cooperative agreement and contract are signed, DJI staff begins "working together" with the dealers. <https://prm.dji.com/>. An overview of the registration procedure from DJI's website is shown below:



d. Defendants have also authorized over 50 online retailers, as listed at <https://www.dji.com/where-to-buy/online-retails>, and have extended warranties to products purchased from the authorized DJI Dealers. Such authorized dealers include those companies listed above (e.g. Walmart and Sam's Club) and many more (e.g. Microsoft, BJ's, GameStop, Verizon Wireless, etc.). Many of these online retailers are available to and accessed by users, customers, and potential customers of the Defendants within this judicial district.



e. Defendants also have 25 designated professional dealers operating in the United States, all of which have online stores through which Defendants' drones and drone-related products are sold, which are available to and accessed by users, customers, and potential customers of the Defendants within this judicial district. A complete list of professional dealers can be found at: <https://www.dji.com/where-to-buy/professional-dealers>.

13. Defendants, directly and through subsidiaries or intermediaries (including distributors, retailers, and others), have purposefully and voluntarily placed their infringing products into this district and into the stream of commerce with the intention and expectation that the infringing products will be purchased for use in this district. Defendants have imported, offered for sale and sold, and continue to import, offer for sale and sell, infringing products for delivery and use in this district.

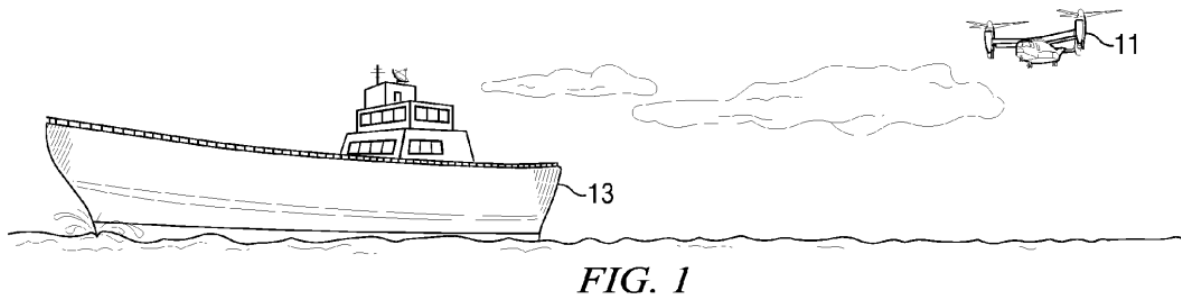
14. Venue is proper in this district under at least 28 U.S.C. §§ 1391(b), (c) and/or 1400(b). Venue in this district is proper for SZ DJI and DJI B.V. at least because they are foreign entities that have committed acts of infringement in this district as detailed throughout this amended complaint.

THE ASSERTED PATENTS

U.S. Patent No. 8,014,909

15. On September 6, 2011, the United States Patent Office ("USPTO") duly and lawfully issued United States Patent No. 8,014,909 ("the '909 Patent"), entitled "Control System for Vehicles." A true and correct copy of the '909 Patent is attached as Exhibit A. By assignment, duly recorded with the USPTO, Textron Innovations owns all substantial rights to the '909 Patent, including the right to sue and recover damages for all infringement.

16. The '909 Patent generally “relates to a control system for causing a vehicle to have a selected position or selected velocity relative to a reference vehicle.” Ex. A at 1:6-9. Figure 1 of the '909 Patent illustrates the concept of a drone following a moving boat:



Id. at Figure 1, 3:46-47 (describing aircraft 11 in Figure 1 as an “unmanned tiltrotor-type aircraft”). Although Figure 1 is illustrated with an aircraft following a moving boat, the '909 Patent recognizes that an aircraft may follow other types of objects. Ex. A at 3:37-41 (“Though the system of the invention is described in use with an aircraft/ship combination, the system may be used for any combination and number of land, air, or sea vehicles or other moving objects where it is useful to control the position and velocity of a vehicle relative to a movable point or vehicle.”).

17. The '909 Patent recognized a problem with then-existing devices and techniques for remote control of an aircraft relative to another object. As the '909 Patent explains, “[r]emote control of an aircraft is typically done by commanding the airspeed or inertial speed (groundspeed) of the vehicle, and the direction of the velocity is selected by controlling the heading of the vehicle.” *Id.* at 1:13-16. “The control inputs are usually commands given in terms of the longitudinal, lateral, or directional axis of the aircraft.” *Id.* at 1:16-18. “Therefore, if an operator controlling the aircraft wants the aircraft to move in a certain direction, the operator must know in which direction the aircraft is pointing to determine which axis of control must be used, and in which direction, in order

to make the aircraft move in the desired direction.” *Id.* at 1:18-23. “When controlling the aircraft relative to another moving vehicle, the operator must also know the velocity and direction of the moving vehicle.” *Id.* at 1:23-25. “If an operator wants to operate a controlled vehicle relative to a moving object, such as another vehicle, the operator must consider the position and velocity of both the controlled vehicle and the object, making controlling the controlled vehicle a more difficult task.” *Id.* at 1:41-46. The ’909 Patent thus recognized a complex technological problem with remote control of an aircraft relative to another object, such as a moving vehicle.

18. The ’909 Patent describes specific improvements to then-existing devices and techniques for remote control of an aircraft relative to another object. For example, the ’909 Patent describes that “[a] key advantage of the present invention is that aircraft 11 is controlled relative to the reference vehicle.” *Id.* at 4:63-64. For example, placing joysticks of a controller in a center position (e.g., by releasing the joysticks) “will command the relative velocity to remain at its present value,” such as zero. *Id.* at 6:33-35. “This means that aircraft 11 will continue with the same velocity relative to ship 13, and in the same direction until the FCB operator commands a relative velocity change.” *Id.* at 6:35-38. The ’909 Patent further explains that “[t]he present invention provides significant advantages over the prior art, including: (1) the autonomous control of aircraft that commands the aircraft to attain and maintain the selected position and/or velocity of the aircraft relative to the reference vehicle by comparing values from onboard sensors with data transmitted to the aircraft indicating the velocity and position of the reference vehicle; (2) the easy control of aircraft relative to a moving vehicle without the operator having to consider the position or velocity of the aircraft in relation to the earth; (3) the control of the velocity of the aircraft relative to the reference vehicle by manipulating a representation of the terminus of the relative velocity vector on a graphical display to a desired angle and magnitude relative to the velocity of the reference

vehicle; (4) the control of the position and/or velocity of the aircraft relative to the reference vehicle by manipulating tactile input devices, such as joysticks.” *Id.* at 8:13-28.

19. The ’909 Patent claims capture specific improvements. For example, the ’909 Patent’s Claim 7 recites a system with sensors that determine the position and inertial movement of the aircraft and a receiver that receives data communicating the position and movement of a reference vehicle. Claim 7 recites that the control system on the aircraft calculates the position of the aircraft relative to the reference vehicle and movement of the aircraft relative to the reference vehicle. This allows for command of flight-control devices to maneuver in a manner that attains and maintains a selected position relative to the reference vehicle or a selected velocity relative to the reference vehicle.

20. The ’909 Patent’s claimed improvements were not routine, conventional, or well-known. As the ’909 Patent explains, these improvements were over the prior art techniques that required an operator to know the position and velocity of an object. *Id.* at 1:13-25, 1:39-46, 8:13-28. The ’909 Patent recognized the unconventional and advantageous nature of having a remotely piloted aircraft receive data from the reference vehicle and calculate relative position or velocity information in a way that would allow the aircraft to follow the object.

21. The ’909 Patent’s improved devices and techniques recited in the claims provide technological benefits over the prior art. The ’909 Patent explains that “[t]he present invention provides significant advantages over the prior art, including: (1) the autonomous control of aircraft that commands the aircraft to attain and maintain the selected position and/or velocity of the aircraft relative to the reference vehicle by comparing values from onboard sensors with data transmitted to the aircraft indicating the velocity and position of the reference vehicle; (2) the easy control of aircraft relative to a moving vehicle without the operator having to consider the position or velocity

of the aircraft in relation to the earth; (3) the control of the velocity of the aircraft relative to the reference vehicle by manipulating a representation of the terminus of the relative velocity vector on a graphical display to a desired angle and magnitude relative to the velocity of the reference vehicle; (4) the control of the position and/or velocity of the aircraft relative to the reference vehicle by manipulating tactile input devices, such as joysticks.” *Id.* at 8:13-28.

U.S. Patent No. 8,108,085

22. On January 31, 2012, the USPTO duly and lawfully issued United States Patent No. 8,108,085 (“the ’085 Patent”), entitled “Control System for Vehicles.” A true and correct copy of the ’085 Patent is attached as Exhibit B. By assignment, duly recorded with the USPTO, Textron Innovations owns all substantial rights to the ’085 Patent, including the right to sue and recover damages for all infringement. The ’085 Patent is a continuation of the ’909 Patent.

23. The ’085 Patent generally “relates to a control system for causing a vehicle to have a selected position or selected velocity relative to a reference vehicle.” Ex. B at 1:26-27. Figure 1 of the ’085 Patent illustrates the concept of a drone following a moving boat:

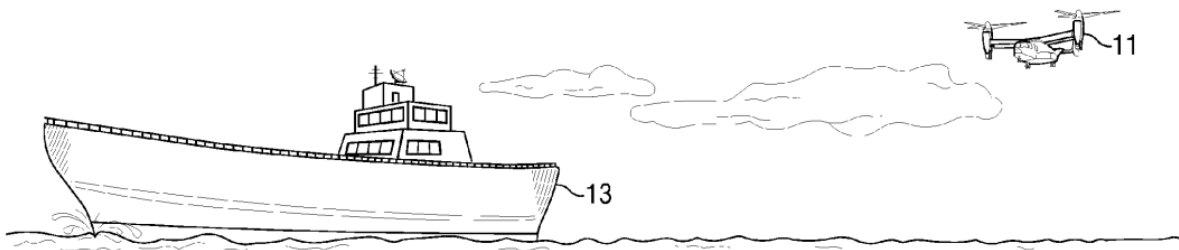


FIG. 1

Id. at Figure 1, 2:59-60 (describing aircraft 11 in Figure 1 as an “unmanned tiltrotor-type aircraft”). Although Figure 1 is illustrated with an aircraft following a moving boat, the ’085 Patent recognizes that an aircraft may follow other types of objects. Ex. B at 2:49-53 (“Though the system

of the invention is described in use with an aircraft/ship combination, the system may be used for any combination and number of land, air, or sea vehicles or other moving objects where it is useful to control the position and velocity of a vehicle relative to a movable point or vehicle.”).

24. The '085 Patent recognized a problem with then-existing devices and techniques for remote control of an aircraft relative to another object. As the '085 Patent explains, “[r]emote control of an aircraft is typically done by commanding the airspeed or inertial speed (groundspeed) of the vehicle, and the direction of the velocity is selected by controlling the heading of the vehicle.” *Id.* at 1:29-32. “The control inputs are usually commands given in terms of the longitudinal, lateral, or directional axis of the aircraft.” *Id.* at 1:32-34. “Therefore, if an operator controlling the aircraft wants the aircraft to move in a certain direction, the operator must know in which direction the aircraft is pointing to determine which axis of control must be used, and in which direction, in order to make the aircraft move in the desired direction.” *Id.* at 1:34-39. “When controlling the aircraft relative to another moving vehicle, the operator must also know the velocity and direction of the moving vehicle.” *Id.* at 1:39-41. “If an operator wants to operate a controlled vehicle relative to a moving object, such as another vehicle, the operator must consider the position and velocity of both the controlled vehicle and the object, making controlling the controlled vehicle a more difficult task.” *Id.* at 1:57-62. The '085 Patent thus recognized a complex technological problem with remote control of an aircraft relative to another object, such as a moving vehicle.

25. The '085 Patent describes specific improvements to then-existing devices and techniques for remote control of an aircraft relative to another object. For example, the '085 Patent describes that “[a] key advantage of the present invention is that aircraft 11 is controlled relative to the reference vehicle.” *Id.* at 4:8-9. For example, placing joysticks of a controller in a center position (e.g., by releasing the joysticks) “will command the relative velocity to remain at its present value,”

such as zero. *Id.* at 5:43-46. “This means that aircraft 11 will continue with the same velocity relative to ship 13, and in the same direction until the FCB operator commands a relative velocity change.” *Id.* at 5:46-49. The ’085 Patent further explains that “[t]he present invention provides significant advantages over the prior art, including: (1) the autonomous control of aircraft that commands the aircraft to attain and maintain the selected position and/or velocity of the aircraft relative to the reference vehicle by comparing values from onboard sensors with data transmitted to the aircraft indicating the velocity and position of the reference vehicle; (2) the easy control of aircraft relative to a moving vehicle without the operator having to consider the position or velocity of the aircraft in relation to the earth; (3) the control of the velocity of the aircraft relative to the reference vehicle by manipulating a representation of the terminus of the relative velocity vector on a graphical display to a desired angle and magnitude relative to the velocity of the reference vehicle; (4) the control of the position and/or velocity of the aircraft relative to the reference vehicle by manipulating tactile input devices, such as joysticks.” *Id.* at 7:26-40.

26. The ’085 Patent claims capture at least some of these specific improvements. For example, the ’085 Patent’s Claim 6 recites a system with sensors that determine the position and inertial movement of the aircraft and a receiver that receives data communicating the position and movement of a reference vehicle. Claim 6 recites that the control system on the aircraft calculates the position of the aircraft relative to the reference vehicle and movement of the aircraft relative to the reference vehicle. This allows for command of flight-control devices to maneuver in a manner that attains and maintains a selected position relative to the reference vehicle or a selected velocity relative to the reference vehicle.

27. The ’085 Patent’s claimed improvements were not routine, conventional, or well-known. As the ’085 Patent explains, these improvements were over the prior art techniques that

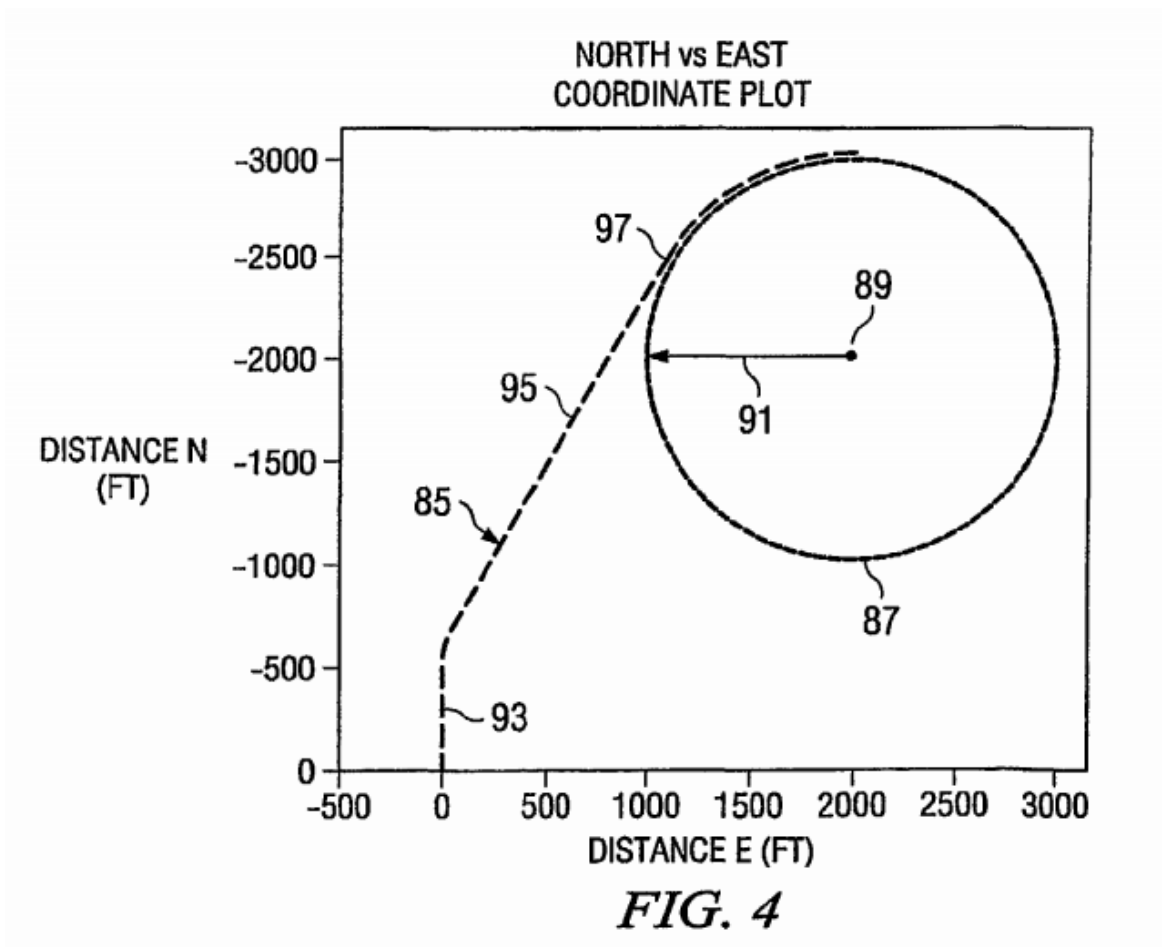
required an operator to know the position and velocity of an object. *Id.* at 1:29-41, 1:55-62, 7:26-40. The '085 Patent recognized the unconventional and advantageous nature of having a remotely piloted aircraft receive data from the reference vehicle and calculate relative position or velocity information in a way that would allow the aircraft to follow the object.

28. The '085 Patent's improved devices and techniques recited in the claims provide technological benefits over the prior art. The '085 Patent explains that "[t]he present invention provides significant advantages over the prior art, including: (1) the autonomous control of aircraft that commands the aircraft to attain and maintain the selected position and/or velocity of the aircraft relative to the reference vehicle by comparing values from onboard sensors with data transmitted to the aircraft indicating the velocity and position of the reference vehicle; (2) the easy control of aircraft relative to a moving vehicle without the operator having to consider the position or velocity of the aircraft in relation to the earth; (3) the control of the velocity of the aircraft relative to the reference vehicle by manipulating a representation of the terminus of the relative velocity vector on a graphical display to a desired angle and magnitude relative to the velocity of the reference vehicle; (4) the control of the position and/or velocity of the aircraft relative to the reference vehicle by manipulating tactile input devices, such as joysticks." *Id.* at 7:26-40.

U.S. Patent No. 8,078,395

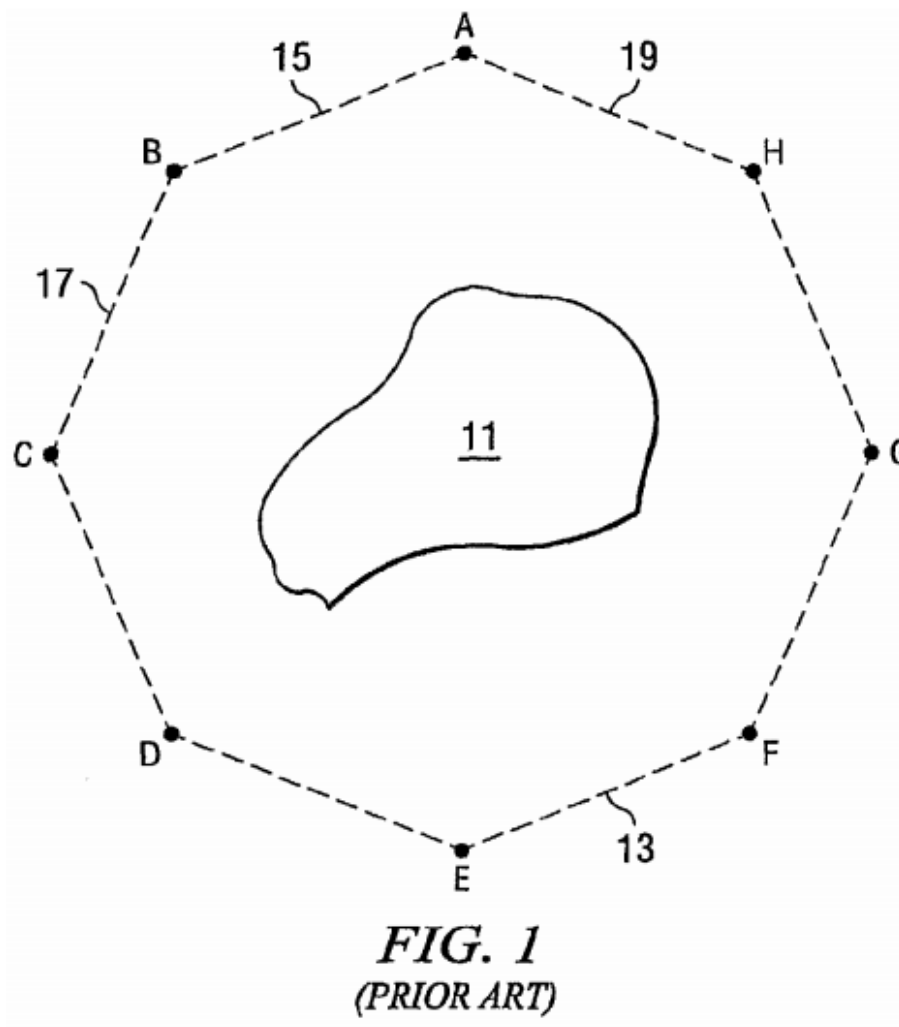
29. On December 13, 2011, the USPTO duly and lawfully issued United States Patent No. 8,078,395 ("the '395 Patent"), entitled "Control System for Automatic Circle Flight." A true and correct copy of the '395 Patent is attached as Exhibit C. By assignment, duly recorded with the USPTO, Textron Innovations owns all substantial rights to the '395 Patent, including the right to sue and recover damages for all infringement.

30. The '395 Patent "relates particularly to a system for achieving and maintaining a circular flight path around a selected fixed or moving point." Ex. C at 1:7-9. The '395 Patent explains that "[i]t is often desirable to fly an aircraft in a path that describes a closed-loop ground track around a particular area of interest, such as the site of an accident or an area being searched." *Id.* at 1:13-15. "One of the benefits is that the aircraft maintains a distance from the area, providing for a continual line-of-sight from the aircraft toward the area of interest." *Id.* at 1:16-18. One example of the '395 Patent's innovative system achieving and maintaining a circular flight path is shown in Figure 4 of the patent:



31. The '395 Patent recognized problems with then-existing manual flight control systems. For example, the '395 Patent explains that pilots had to manually pilot an aircraft around

an area by observing the area and controlling the flight of the aircraft in response to the observation. *Id.* at 1:19-23 (“When the aircraft is being flown under manual control, whether by a pilot onboard the aircraft or by a pilot remotely operating the aircraft, the pilot may maintain the desired path around the area by observing the area of interest and controlling the flight of the aircraft in response to the observation.”). This required the pilot to fly the aircraft in a banked attitude and maintain a constant turn rate in a circular pattern at a constant radius from the center point of the area—all while observing the area of interest. *Id.* at 2:24-31. Alternatively, a pilot could fly an aircraft to a set of waypoints around the area, with a straight line connecting each waypoint. *Id.* at 1:32-49. This technique is shown in Figure 1 of the ’395 Patent:

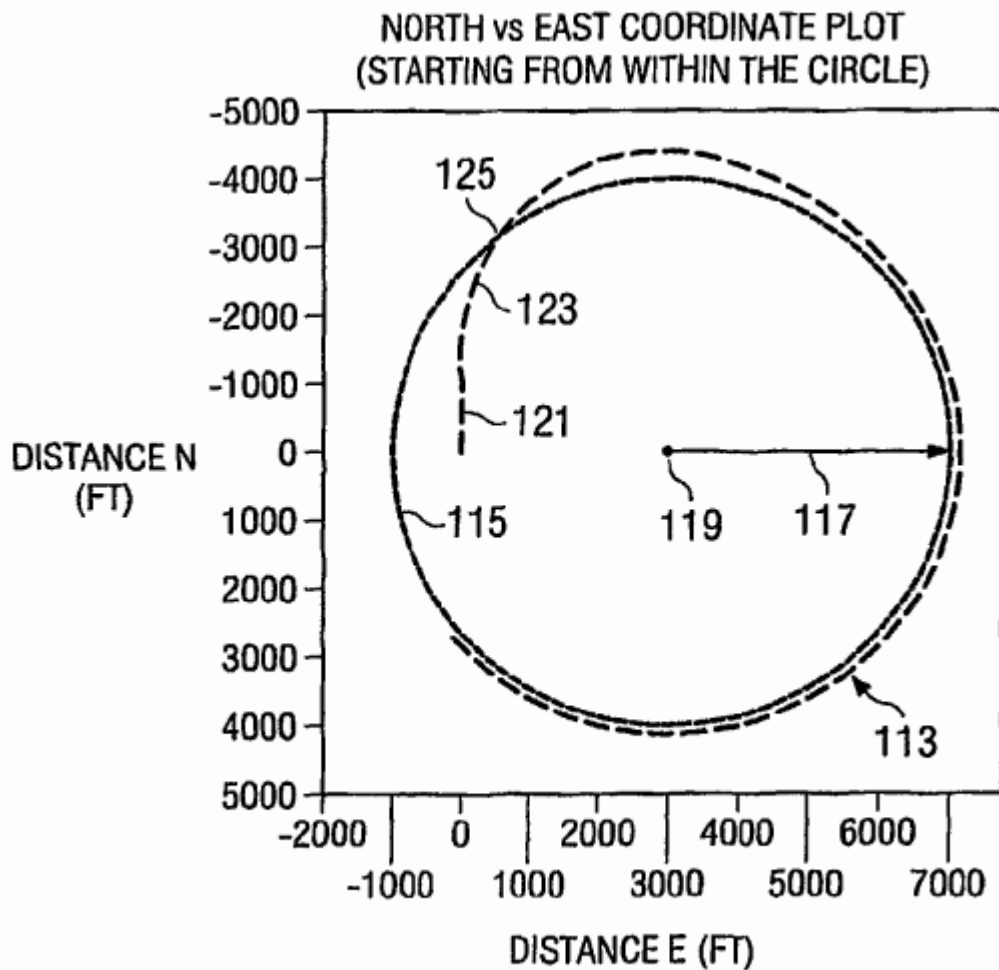


32. The '395 Patent describes drawbacks of those techniques: "The requirement that the onboard or remote pilot manually fly the aircraft in the desired path increases the pilot's workload and reduces the ability of the pilot to observe the area of interest. Also, it may be difficult for the pilot to maintain a desired distance from the location while circling, especially in windy conditions. For the waypoint method to describe a circular path, the path must have a large radius and/or many waypoints. Selecting such a set of waypoints may be difficult and time consuming." *Id.* at 1:50-58.

33. The '395 Patent also recognizes problems with automated aircraft flight control systems: "Existing flight control systems provide for automatic flight along a closed-loop path by flying to waypoints. Alternatively, an aircraft may be commanded to loiter around or near an area, in which the flight control systems fly the aircraft in complicated patterns or ground tracks. For example, some systems will control aircraft to fly over a selected point on the ground, which may be given as GPS coordinates or by other coordinate systems, then turn the aircraft around to fly over the same point again. The ground tracks of these paths may be regular patterns, such as a "figure-8" pattern, or the paths may be of irregular shapes." *Id.* at 2:4-15. The '395 Patent explains that "[t]he disadvantage of these systems is that they may not provide for a continual line-of-sight or may require repositioning of observers or devices on the aircraft to continue observations of the area of interest." *Id.* at 2:15-18.

34. The '395 Patent describes specific improvements to then-existing aircraft and techniques for aircraft flight control systems. Having recognized the problems with existing aircraft and techniques, the '395 Patent recognized and fulfilled a "need for a flight control system that provides for automatic flight around a circle of a commanded center and radius at a commanded altitude and velocity." *Id.* at 2:22-25. The '395 Patent explains that "[t]he present invention is

directed to a flight control system configured for automatically controlling the flight of an aircraft, such that the aircraft flies toward a selected area of interest and circles a selected point in the area at a specified radius, altitude, and velocity.” *Id.* at 3:24-28. “The control system requires only one point in space and a radius to define the circle and is useful for controlling the flight of manned and unmanned aircraft of all types, including helicopters, tiltrotors, and fixed-wing aircraft.” *Id.* at 3:31-35. An aircraft attaining and maintaining a circular groundtrack at a constant radius is shown in Figure 6 of the ’395 Patent:



The '395 Patent thus eliminated drawbacks of existing manual and automated flight control systems, including the need for a pilot to continually observe the area of interest while simultaneously trying to pilot the aircraft on a circular groundtrack.

35. The '395 Patent claims capture these specific improvements. For example, Claim 1 of the '395 Patent recites a flight control system with a means for receiving command signals representing commanded values of a location of a geospatial point and a radius about the geospatial point for defining a circular groundtrack, a means for determining a geospatial location of the aircraft and providing a location signal representing the location of the aircraft, and a controller for commanding flight control devices on the aircraft. Claim 1 further recites that the controller uses the command signals and location signal to operate the flight control devices to control the flight of the aircraft for directing the aircraft toward a tangent point of the circular groundtrack for intercepting the circular groundtrack and then generally maintaining a flight path along the circular groundtrack. Claim 1 thus captures the improvements over the prior art.

36. The '395 Patent recognizes the value of the invention to society. The '395 Patent explains that “The system is particularly suited for use in aircraft performing surveillance, search, rescue, and military missions.” *Id.* at 3:35-37. “For example, a medical evacuation helicopter used to transport trauma patients could use the system when dispatched to the scene of an accident. The dispatcher would provide the helicopter crew with the coordinates of the accident, and the system would enable the helicopter to get there in the fastest possible time without the need to follow landmarks. Likewise, a law enforcement helicopter could be dispatched to a specified location and circle the location without the requirement of input from the pilot. Another example is use of the system for a helicopter used to provide traffic reports, the helicopter being able to quickly and easily get to a specified accident or traffic location and then circle the area. Military aircraft can

use the system of the invention for gunships, allowing the aircraft to circle identified targets.” *Id.* at 3:38-51.

37. The ’395 Patent’s claimed improvements were not routine, conventional, or well-known. As explained above, existing flight control techniques relied upon manual piloting of an aircraft on a groundtrack while a pilot is observing the area—which is inaccurate, burdensome, and dangerous—and automated techniques that used complicated non-circular groundtracks—which did not provide for a continuous line-of-sight or required repositioning of observers or devices on an aircraft to allow for observation. The ’395 Patent provided an unconventional solution that automatically flies an aircraft in a circular groundtrack around a fixed point at a constant radius. Automating such flight involves complex aerospace engineering and was not routine or well-known.

38. The ’395 Patent’s improved devices and techniques recited in the claims provide technological advantages over the prior art. These advantages include “(1) the ability for a system to automatically operate an aircraft to fly a circle having a selected center and radius; and (2) the ability to intercept and fly a circle from an initial point located inside or outside of the circle.” *Id.* at 2:43-47.

U.S. Patent No. 9,162,752

39. On October 20, 2015, the USPTO duly and lawfully issued United States Patent No. 9,162,752 (“the ’752 Patent”), entitled “Flight Control Laws for Automatic Hover Hold.” A true and correct copy of the ’752 Patent is attached as Exhibit D. By assignment, duly recorded at the United States Patent and Trademark Office, Textron Innovations owns all substantial rights to the ’752 Patent, including the right to sue and recover damages for all infringement. Ex. G.

40. The ’752 Patent relates to “flight control laws for automatic hover hold.” Ex. D at 1:7-8. The ’752 Patent describes problems with then-existing flight control systems and techniques. One of the problems that the ’752 Patent describes is flight control in reduced-visibility situations.

Id. at 1:11-18. The '752 Patent recognized that flight in those situations is perilous and has led to lethal crashes. *Id.* at 1:19-44. For example, the '752 Patent describes crashes of a U.S. Marine Corps UH-1N and a MH-60K in reduced-visibility situations. *Id.* The '752 Patent describes that “[f]lying into this kind of environment can be very challenging when encountering an unprepared landing site, obstacles in the landing zone or flight path, loss of the horizontal reference, instrument malfunctions, windy conditions, sensor errors, jammed actuators, or ground effect interactions.” *Id.* at 1:48-53. Although “new methods and devices to aid the pilot in brownout situations have been introduced in recent years, . . . many shortcomings remain.” *Id.* at 1:54-62.

41. The '752 Patent thus is directed to improving “existing aircraft sensors, actuators, and control laws to help the pilot overcome brownout or degraded visual environment (DVE) flight.” *Id.* at 2:40-42. The '752 Patent does this by, for example, an “innovative control law architecture, with advanced concepts to stabilize the aircraft, allow[ing] the pilot to maneuver at low speed with minimal compensation and workload.” *Id.* at 2:43-45. These advanced concepts include, for example, “automatic hover hold” or “AHH” and “position hold” or “PH.” *Id.* at 3:4-10.

42. AHH allows an aircraft to automatically decelerate and hover when engaged, such as when the longitudinal and lateral controllers are in the detent position. *Id.* at 3:13-16, 8:27-34. The '752 Patent describes several objectives and benefits stemming from AHH:

One of the main objectives for the AHH function is to capture the hover state following an aircraft deceleration. This function will greatly reduce the pilot's workload especially in a degraded visual environment.

The second objective is to effectively hold the aircraft position following the hover capture. The current invention will accurately hold hover position even while turning in strong, gusty winds with the pilot's hands off of the controls.

The third objective is to enable the pilot to have carefree controlled flight in any condition. When all controls are in detent positions, the aircraft will automatically stabilize and fly in its associated modes.

The fourth objective is to smoothly transition through the different modes. For example, the advanced CLAWS allow for a smooth transition from TRC mode

to attitude command mode, and then finally to speed hold mode. The difference between the two commands can cause a jump in the control input. However, initialization logic is used to ensure transient-free switching from one mode to another.

The fifth objective is to provide HSTH, where the pilot can trim the aircraft to automatically capture hover from a high speed by using the longitudinal beep to set a pitch attitude for steady deceleration.

The sixth objective is to transition the aircraft into EHH mode during an emergency situation. Usually, the EHH mode will not trigger when the pilot is in control.

Id. at 7:60-8:19.

43. PHH allows an aircraft to hold its position over a particular point and return to that point if disturbed. “In the PH mode, the control laws will automatically hold the position over the ground, altitude AGL, and heading.” *Id.* at 9:15-17. “With PH engaged, the captured position will be tightly held even in the presence of disturbances due to gusty winds or control inputs in the directional or vertical axes. If the aircraft drifts off from the captured position, the PH mode will make corrections to bring it back.” *Id.* at 9:24-28. PH may be engaged when the groundspeed of the aircraft drops below a threshold, e.g., 1 knot, and the longitudinal and lateral controllers are in detent. *Id.* at 9:6-11.

44. The ’752 Patent claims capture these specific improvements. For example, Claim 1 recites defining a first flight envelope having a first groundspeed threshold and engaging an automatic hover hold with a control law hover hold architecture as the aircraft enters the first flight envelope. Claim 1 further recites defining a second flight envelope having a second groundspeed threshold, the second flight envelope being defined within the first envelope and engaging an automatic position hold with a control law position hold architecture as the aircraft enters the second flight envelope. Claim 1 also recites interchanging the automatic hover hold and the automatic position hold as the rotary aircraft moves between the first flight envelope and the second flight envelope. As another example, Claim 13 recites a longitudinal loop design having a

forward speed hold loop, a pitch attitude loop, and a pitch rate loop, wherein the forward speed hold loop automatically engages when the longitudinal controller is returned to a detent position and the aircraft groundspeed is outside a first groundspeed threshold. The longitudinal maneuverability of the rotary aircraft is controlled by either the pitch attitude loop or the pitch rate loop when the longitudinal controller is out of the detent position. Claim 13 recites a lateral loop design having a lateral speed hold loop and a roll rate loop, where the lateral speed hold loop automatically engages when the lateral controller is returned to a detent position and the aircraft groundspeed is outside the first groundspeed threshold. The lateral maneuverability of the rotary aircraft is controlled by either the lateral speed hold loop or the roll rate loop when the lateral controller is out of the detent position. Claim 13 recites a directional loop design having a yaw rate command loop and a heading hold loop, where the heading hold loop will be re-engaged automatically during flight in the first groundspeed threshold when the directional controller is in detent. Claim 13 recites a vertical control loop design having a vertical speed hold loop and an altitude hold loop, where the altitude hold loop automatically engages when the vertical controller is returned to a detent position and the aircraft groundspeed is inside the first groundspeed threshold. The vertical maneuverability of the rotary aircraft is controlled by the vertical speed hold loop if the vertical controller is out of the detent position. These recited concepts are concepts described in the specification as improvements that provide important safety benefits to pilots, including, for example, AHH and PH.

45. The '752 Patent's claimed improvements were not routine, conventional, or well-known. The '752 Patent itself states that the architecture of the innovative advanced control laws "is not the same as conventional CLAWS." *Id.* at 4:23-24. The '752 Patent then distinguishes its invention over "[g]eneral flight control law architecture" in a "conventional helicopter." *Id.* at 4:43-

65. The '752 Patent states that it “optimize[s] the performance of the automatic hover hold CLAWS” by presenting “methodologies to decouple and stabilize each aircraft axis [that] are combined with the logic integration shown in [the general flight control law architecture].” *Id.* at 4:66-5:2.

46. The '752 Patent's innovations have proven technological benefits. The '752 Patent states that “[i]t has been demonstrated in previous flight testing that even with wind conditions as high as 30-35 knots, aircraft performance will not degrade with the advanced control laws (CLAWS) of the present application. More than 80 hours of flight testing have been conducted to prove the robustness of these CLAWS. Furthermore, it has been shown that even non-pilots can handle the aircraft utilizing the CLAWS of the present application.” *Id.* at 2:45-53. Moreover, the AHH and PH modes overcome the significant safety problems described in the '752 Patent, as, for example, they allow a pilot to safely maintain the aircraft's position, altitude, and heading in reduced-visibility situations.

U.S. Patent No. 10,243,647

47. On March 26, 2019, the USPTO duly and lawfully issued United States Patent No. 10,243,647 (“the '647 Patent”), entitled “Aircraft Visual Sensor System.” A true and correct copy of the '647 Patent is attached as Exhibit E. By assignment, duly recorded at the United States Patent and Trademark Office, Textron Innovations owns all substantial rights to the '647 Patent, including the right to sue and recover damages for all infringement. Ex. H.

48. The '647 Patent generally relates to an aircraft visual sensor system. Ex. E at 1:5-7. The '647 Patent recognized problems that existing aircraft faced. The '647 Patent explains that “[t]here are many hazards that may arise during operation of rotorcraft and other aircraft, including collisions, contact with moving components (e.g., rotors, propellers, and jet engine intakes), landing on uneven, obstructed, or otherwise dangerous surfaces, and so forth.” *Id.* at 2:48-52. “For example,

the rotors of a rotorcraft 100 (e.g., main rotor 120 and/or tail rotor 140) present a risk of contact with objects, such as people, animals, structures (e.g., buildings, powerlines), terrain (e.g., the ground and other landing surfaces), and so forth.” *Id.* at 2:52-56. “Moreover, many hazards may be difficult for a pilot to identify, as they may be outside the pilot’s field of view or otherwise difficult for the pilot to see.” *Id.* at 2:57-59. The ’647 Patent thus recognized a problem in the art and provided a solution to that problem through a “visual sensor system for detecting and responding to hazards during operation of an aircraft.” *Id.* at 2:59-62.

49. The ’647 Patent describes that embodiments of the visual sensor system “may detect and respond to hazards using a collection of sensors and/or cameras selectively positioned throughout an aircraft.” *Id.* at 2:63-66. “For example, sensors can be used to identify the operating environment and/or situational context of an aircraft, including objects, people, animals, structures, and/or terrain in the vicinity of the aircraft.” *Id.* at 2:66-3:3. “Moreover, cameras can be selectively positioned on the aircraft to provide the pilot with meaningful perspectives of the aircraft and its surroundings, including any detected hazards and their locations relative to the aircraft.” *Id.* at 3:3-6. If an object or hazard is detected, the ’647 Patent describes that the visual sensor system can display information about the object or hazard on a video display, such as the distance to the hazard. *Id.* at 3:48-62. The ’647 Patent also describes that the visual sensor system can perform remedial procedures upon detecting a hazard, such as displaying a warning or autonomously adjusting the flight path. *Id.* at 5:16-39; 9:25-41. These improvements to aircraft provide important “situational awareness by identifying the operating environment and situational context of the aircraft, including objects, people, animals, structures, or terrain that are within the vicinity of the aircraft.” *Id.* at 3:63-67. The end result is that the ’647 Patent provides improved safety through fewer crashes. *Id.* at 5:60-61.

50. The '647 Patent claims capture these specific improvements. For example, Claim 1 of the '647 Patent recites a processing device that is configured to obtain sensor data from one or more sensors associated with the rotorcraft. Claim 1 recites that those sensors are configured to detect information associated with an operating environment of the rotorcraft—which, for example, helps provide situational awareness. Claim 1 further recites that the processor is configured to detect an object near the rotorcraft based on the sensor data and to obtain a camera feed from a camera associated with the rotorcraft, wherein the camera feed comprises a camera view of at least a portion of the object relative to the rotorcraft. Claim 1 then recites that the processor is configured to generate a display output based on the camera feed and the sensor data, wherein the display output comprises a visual perspective of the object relative to the rotorcraft and to cause the display output to be displayed on a display device—which, for example, also helps provide situational awareness. Claim 1 also recites that the processor is configured to determine a physical characteristic of the object based on the sensor data and to automatically adjust operation of the rotorcraft based on the determined physical characteristic of the object—which, for example, improves safety through reduction of crashes.

51. The '647 Patent's claims were not routine, conventional, or well-known. Rather than relying on a pilot's own visual observations and manual reactions to hazards, the '647 Patent's claims recite an unconventional technique that involves using sensor data and a camera feed to provide a display output, so that a pilot's situational awareness is improved. And, in combination with limitations in Claim 1 directed to automatically adjusting operation of the rotorcraft, Claim 1 recites an unconventional combination that provides a display output and automatically adjusts operation of the rotorcraft.

52. The '647 Patent's improved devices and techniques recited in the claims provide technological advantages. The '647 Patent provides examples of some technological advantages:

The embodiments of a visual sensor system described throughout this disclosure provide numerous technical advantages, including, for example, accurately detecting and/or responding to hazards using a variety of sensor technologies and/or cameras selectively positioned on an aircraft. The described embodiments can be implemented in a cost-efficient manner using lightweight and inexpensive sensors (e.g., "off-the-shelf" sensors and/or existing sensor technologies). The described embodiments can also display meaningful views of detected hazards, for example, using selectively positioned cameras that provide optimal views of the hazards (e.g., views showing the hazards relative to the aircraft), and/or incorporating visual representations of hazards onto the camera views using data from sensors. The described embodiments can also perform various other remedial measures to minimize and/or eliminate the risk presented by hazards, such as providing notifications and/or warnings, altering flight paths, shutting off or stopping engines or rotors, and so forth. The described embodiments may integrate a novel and unique combination of hardware and software that greatly improves situational awareness during operation of an aircraft, thus resulting in significantly increased safety. The safety benefits are particularly advantageous to rotorcraft and other aircraft with unprotected rotors and/or propellers that can potentially contact static and dynamic objects external to the aircraft, as the risk of dangerous contact can be minimized or avoided using the described embodiments. Moreover, reducing the risk of contact with a rotor or propeller is particularly beneficial to rotorcraft and other aircraft capable of vertical take-off and landing (VTOL).

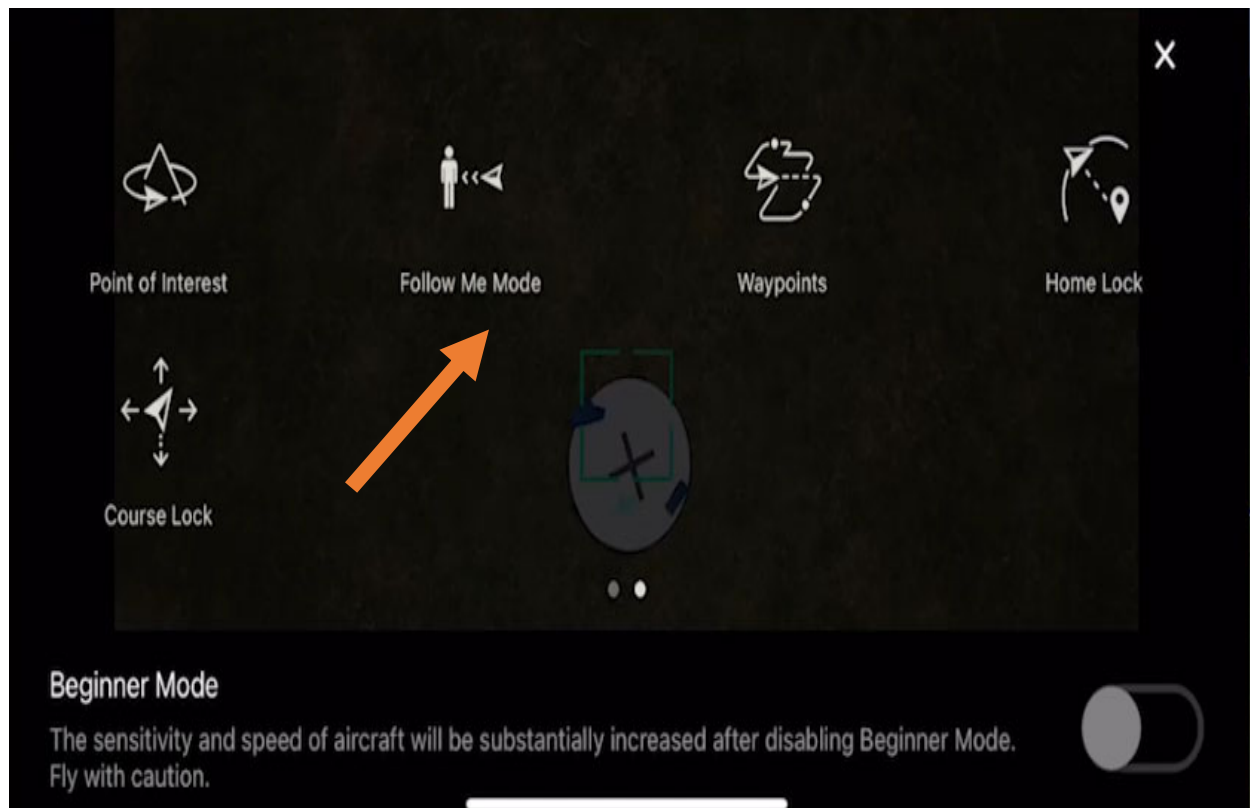
Id. at 5:40-6:3.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 8,014,909

53. Textron Innovations re-alleges and incorporates herein by reference the allegations contained in Paragraphs 1–52 of the Amended Complaint as if fully set forth herein.

54. DJI has directly infringed, and continues to directly infringe, the '909 Patent in violation of 35 U.S.C. § 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '909 Patent literally or under the doctrine of equivalents. Those products include, for example, any DJI drone that includes the "Follow Me Mode," such as the DJI Phantom series (e.g., Phantom 3 Advanced, Phantom 3 Professional, Phantom 3 SE, Phantom 3 Standard, Phantom 4,

Phantom 4 Pro, Phantom 4 Pro+, Phantom 4 Advanced, Phantom 4 Advanced+), the Inspire series (e.g., Inspire 1, Inspire 1 Pro, Inspire 1 Raw), and the DJI Mavic series (e.g., Mavic Pro, Mavic Pro Platinum) (collectively, the “Accused ’909 Products”). This feature is shown on a DJI user interface as follows:



55. As a non-limiting example, the Accused ’909 Products meet every element of at least Claim 7 of the ’909 Patent literally or under the doctrine of equivalents. Claim 7 recites:

7. A system for controlling the flight of an aircraft comprising:

sensors carried on the aircraft, the sensors being adapted to determine the position of the aircraft relative to the earth and the inertial movement of the aircraft, the sensors also being adapted to output data communicating the position and movement of the aircraft;

a receiver carried on the aircraft and adapted to receive transmitted data communicating the position of a reference vehicle relative to the earth and movement of the reference vehicle relative to the earth; and

a control system carried on the aircraft and connected to the sensors and the receiver, the control system calculating the position of the aircraft relative to the reference vehicle and movement of the aircraft relative to the reference vehicle using the data from the sensors and the data received by the receiver, the control system being adapted to command flight-control devices on the aircraft for causing the aircraft to maneuver in a manner that attains and maintains a selected position relative to the reference vehicle or a selected velocity relative to the reference vehicle;

wherein the selected position and velocity of the aircraft relative to the reference vehicle is selected and input into the control system prior to flight of the aircraft.

56. Exhibit F-1 to this Amended Complaint is a claim chart showing a non-limiting example of how the DJI Phantom 4 Pro meets Claim 7 literally or under the doctrine of equivalents. The components and functionality for the Phantom 4 Pro in this chart are representative of the components and functionality present in all Accused '909 Products. DJI thus directly infringed and continues to directly infringe each limitation of at least Claim 7 of the '909 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the Accused '909 Products.

57. DJI also indirectly infringes at least Claim 7 of the '909 Patent in violation of 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, and service providers, in the United States with knowledge and the specific intent that its efforts would result in the direct infringement of the '909 Patent. For example, DJI actively induces infringement of the '909 Patent by designing, manufacturing, selling, or distributing the Accused '909 Products and then training its customers and users on the use of those products and the Follow Me Mode, including through the creation and dissemination of supporting materials, videos, instructions, product manuals, and technical information. https://www.youtube.com/watch?v=C_v3sSxnZ00; <https://fcc.report/FCC-ID/2AHAY-WM3301601>. DJI has stated that its “marketing efforts include . . . preparing

instruction videos and user manuals.” *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at ¶ 14 (D. Del. Feb. 24, 2021). As another example, DJI actively induces infringement of the ’909 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates, including DJI Creative Studio LLC, DJI Industrial Inc., and DJI Service LLC to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the ’909 Patent, such as any DJI drone that includes the “Follow Me Mode.” As yet another example, DJI actively induces infringement of the ’909 Patent through the creation and dissemination of promotional and marketing materials. https://www.youtube.com/watch?v=C_v3sSxnZ00. DJI has stated that its “marketing efforts include preparing marketing videos, . . . providing samples to reviewers of drone products, and preparing for press conferences and marketing events.” *Id.* DJI’s active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the ’909 Patent.

58. DJI had knowledge of the ’909 Patent at least as of January 8, 2018. The ’909 Patent was cited by DJI in an information disclosure statement on January 8, 2018, during DJI’s prosecution of U.S. Patent Application No. 15/465,457. The ’909 Patent also was cited on five other occasions in the prosecution of that patent application, including on April 17, 2019, in the examiner’s search strategy and results, again on April 17, 2019, in the list of references cited by the applicant, on January 8, 2020, in the examiner’s search strategy and results, and on April 10, 2020, in the examiner’s search strategy and results. The ’909 Patent is now listed on the face of DJI’s subsequently-issued patent as a reference cited:

(56)

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59. Alternatively, at the latest, DJI has had knowledge of the '909 Patent as of the filing date of this suit.

60. DJI also has had knowledge of how DJI infringes the '909 Patent at least as of the filing date of this suit. The Amended Complaint includes a claim chart explaining how DJI infringes the '909 Patent. Ex. F-1.

61. DJI also is liable for contributory infringement of the '909 Patent under 35 U.S.C § 271(c) by selling or offering for sale the Accused '909 Products and/or other components (e.g., flight controllers, controllers, etc.) in the United States and importing the Accused '909 Products and/or other components (e.g., flight controllers, controllers, etc.) into the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '909 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. DJI contributes to infringement of the '909 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '909 Products and/or other components (e.g., flight controllers, controllers, etc.) to third parties.

62. DJI's infringement of the '909 Patent has been and continues to be willful. At least since January 8, 2018, DJI has deliberately continued to infringe the '909 Patent despite knowing of the existence of the patent. Alternatively, at least since the filing date of this suit, DJI has deliberately continued to infringe the '909 Patent despite knowing of the existence of the patent and how DJI infringes. Further, DJI has deliberately continued to encourage others' infringement of the '909 Patent, including by continuing to disseminate its marketing and technical materials to customers.

63. DJI's acts of infringement have injured and damaged Textron Innovations and will continue to injure and damage Textron Innovations. Textron Innovations is therefore entitled to recover from DJI the damages it has sustained as a result of DJI's wrongful and continued acts in an amount to be proven at trial.

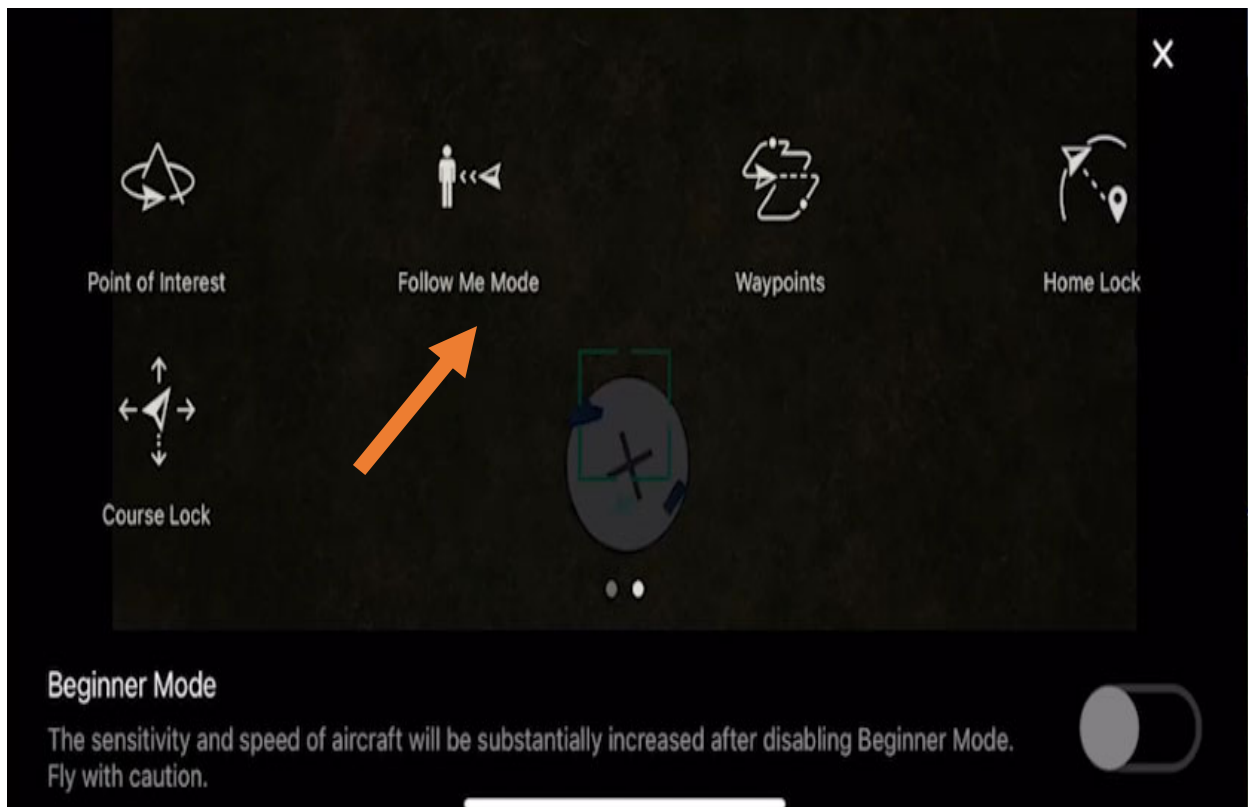
64. DJI's infringement has damaged and will continue to damage Textron Innovations irreparably, and Textron Innovations has no adequate remedy at law for its injuries. In addition to actual damages, Textron Innovations is entitled to a permanent injunction enjoining DJI from infringing the '909 Patent.

65. Textron Innovations is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. § 287 in that it has not manufactured, used, sold, or offered for sale in the United States, or imported into the United States, any product that practices the '909 Patent. Textron Innovations is not aware of any licensee that has been confirmed to have manufactured, used, sold, or offered for sale in the United States, or imported into the United States, a product that practices the '909 Patent.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 8,108,085

66. Textron Innovations re-alleges and incorporates herein by reference the allegations contained in Paragraphs 1–52 of the Amended Complaint as if fully set forth herein.

67. DJI has directly infringed, and continues to directly infringe, the '085 Patent in violation of 35 U.S.C. § 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '085 Patent literally or under the doctrine of equivalents. Those products include, for example, any DJI drone that includes the “Follow Me Mode,” such as the DJI Phantom series (e.g., Phantom 3 Advanced, Phantom 3 Professional, Phantom 3 SE, Phantom 3 Standard, Phantom 4, Phantom 4 Pro, Phantom 4 Pro+, Phantom 4 Advanced, Phantom 4 Advanced+), the Inspire series (e.g., Inspire 1, Inspire 1 Pro, Inspire 1 Raw), and the DJI Mavic series (e.g., Mavic Pro, Mavic Pro Platinum) (collectively, the “Accused '085 Products”). This feature is shown on a DJI user interface as follows:



68. As a non-limiting example, the Accused '085 Products meet every element of at least Claim 6 of the '085 Patent literally or under the doctrine of equivalents. Claim 6 recites:

6. A system for controlling the flight of an aircraft comprising:

sensors carried on the aircraft, the sensors being adapted to determine the position of the aircraft relative to the earth and the inertial movement of the aircraft, the sensors also being adapted to output data communicating the position and movement of the aircraft;

a receiver carried on the aircraft and adapted to receive transmitted data communicating the position of a reference vehicle relative to the earth and movement of the reference vehicle relative to the earth; and

a control system carried on the aircraft and connected to the sensors and the receiver, the control system calculating the position of the aircraft relative to the reference vehicle and movement of the aircraft relative to the reference vehicle using the data from the sensors, commanded data inputted into the control system prior to flight, and the data received by the receiver, the control system being adapted to command flight-control devices on the aircraft for causing the aircraft to maneuver in a manner that attains and maintains a selected position relative to the reference vehicle or a selected velocity relative to the reference vehicle.

69. Exhibit F-2 to this Amended Complaint is a claim chart showing a non-limiting example of how the DJI Phantom 4 Pro meets Claim 6 literally or under the doctrine of equivalents. The components and functionality for the Phantom 4 Pro in this chart are representative of the components and functionality present in all Accused '085 Products. DJI thus directly infringed and continues to directly infringe each limitation of at least Claim 6 of the '085 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the Accused '085 Products.

70. DJI also indirectly infringes at least Claim 6 of the '085 Patent in violation of 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, and service providers, in the United States with knowledge and the specific intent that its efforts would result in the direct infringement of the '085 Patent. For example, DJI actively induces infringement of the '085 Patent by designing, manufacturing, selling, or distributing the Accused '085 Products and then training its customers

and users on the use of the Accused '085 Products and the Follow Me Mode, including through the creation and dissemination of supporting materials, videos, instructions, product manuals, and technical information. https://www.youtube.com/watch?v=C_v3sSxnZ00; <https://fcc.report/FCC-ID/2AHAY-WM3301601>. DJI has stated that its “marketing efforts include . . . preparing instruction videos and user manuals.” *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at ¶ 14 (D. Del. Feb. 24, 2021). As another example, DJI actively induces infringement of the '085 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates, including DJI Creative Studio LLC, DJI Industrial Inc., and DJI Service LLC to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '085 Patent, such as any DJI drone that includes the “Follow Me Mode.” As yet another example, DJI actively induces infringement of the '085 Patent through the creation and dissemination of promotional and marketing materials. https://www.youtube.com/watch?v=C_v3sSxnZ00. DJI has stated that its “marketing efforts include preparing marketing videos, . . . providing samples to reviewers of drone products, and preparing for press conferences and marketing events.” *Id.* DJI’s active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the '085 Patent.

71. At least as of the filing date of this suit, DJI has had knowledge of the '085 Patent and knowledge of how DJI and third parties infringe that patent. The Amended Complaint includes a claim chart explaining how DJI infringes the '085 Patent. Ex. F-2.

72. DJI also is liable for contributory infringement of the '085 Patent under 35 U.S.C. § 271(c) by selling or offering for sale the Accused '085 Products and/or other components (e.g., flight controllers, controllers, etc.) in the United States and importing the Accused '085 Products

and/or other components (e.g., flight controllers, controllers, etc.) into the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '085 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. DJI contributes to infringement of the '085 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '085 Products and/or other components (e.g., flight controllers, controllers, etc.) to third parties.

73. DJI's infringement of the '085 Patent has been and continues to be willful. At least since the filing date of this suit, DJI has deliberately continued to infringe the '085 Patent despite knowing of the existence of the patent and how DJI infringes. Further, DJI has deliberately continued to encourage others' infringement of the '085 Patent, including by continuing to disseminate its marketing and technical materials to customers.

74. DJI's acts of infringement have injured and damaged Textron Innovations and will continue to injure and damage Textron Innovations. Textron Innovations is therefore entitled to recover from DJI the damages it has sustained as a result of DJI's wrongful and continued acts in an amount to be proven at trial.

75. DJI's infringement has damaged and will continue to damage Textron Innovations irreparably, and Textron Innovations has no adequate remedy at law for its injuries. In addition to actual damages, Textron Innovations is entitled to a permanent injunction enjoining DJI from infringing the '085 Patent.

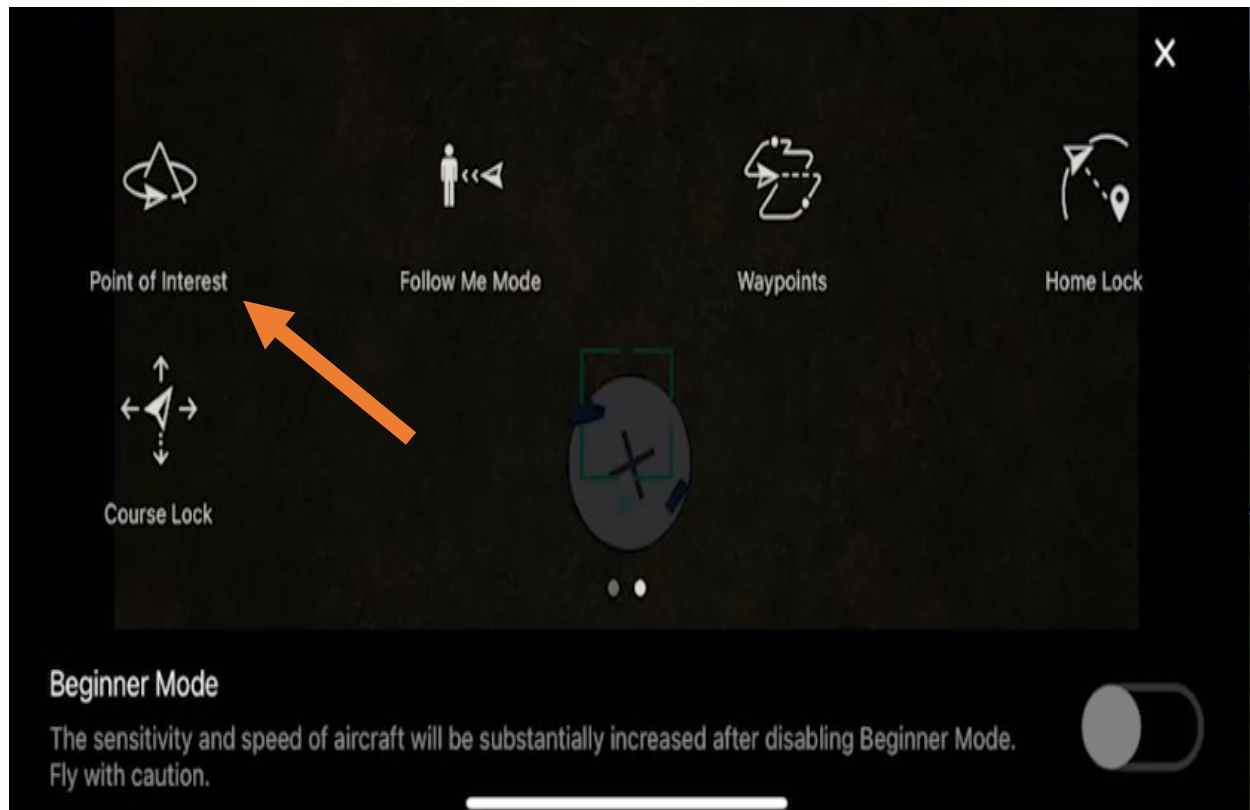
76. Textron Innovations is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. § 287 in that it has not manufactured, used, sold, or offered for sale in the United States, or imported into the United States, any product that practices the '085 Patent. Textron Innovations is not aware of any licensee that has been confirmed to have

manufactured, used, sold, or offered for sale in the United States, or imported into the United States, a product that practices the '085 Patent.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 8,078,395

77. Textron Innovations re-alleges and incorporates herein by reference the allegations contained in Paragraphs 1–52 of the Amended Complaint as if fully set forth herein.

78. DJI has directly infringed, and continues to directly infringe, the '395 Patent in violation of 35 U.S.C. § 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '395 Patent literally or under the doctrine of equivalents. Those products include, for example, any DJI drone that includes the “Point of Interest Mode,” such as the DJI Phantom series (e.g., the DJI Phantom 3 Advanced, Phantom 3 Professional, Phantom 3 SE, Phantom 3 Standard, Phantom 4, Phantom 4 Pro, Phantom 4 Pro+, Phantom 4 Advanced, Phantom 4 Advanced+), the Inspire series (e.g., Inspire 1, Inspire 1 Pro, Inspire 1 Raw), the DJI Mavic series (e.g., Mavic Pro, Mavic Pro Platinum, Mavic Air, Mavic Air 2, Mavic 2 Zoom, Mavic 2 Pro, Mavic 2 Enterprise Series, Mavic 2 Enterprise Advanced, etc.), the Air 2S, and the Matrice series (e.g., the Matrice 100, Matrice M200 V2, Matrice M210 V2, Matrice M210 RTK V2, Matrice 300 RTK, Matrice 600, Matrice 600 Pro)) (collectively, the “Accused '395 Products”). This feature is shown on a DJI user interface as follows:



79. As a non-limiting example, the Accused '395 Products meet every element of at least Claim 1 of the '395 Patent literally or under the doctrine of equivalents. Claim 1 recites:

1. A flight control system for an aircraft, the system comprising:

means for receiving command signals representing commanded values of a location of a geospatial point and a radius about the geospatial point for defining a circular groundtrack;

means for determining a geospatial location of the aircraft and providing a location signal representing the location of the aircraft; and

a controller for commanding flight control devices on the aircraft for controlling the flight of the aircraft, the controller also being configured to receive the command signals and the location signal;

wherein the controller uses the command signals and location signal to operate the flight control devices to control the flight of the aircraft for directing the aircraft toward a tangent point of the circular groundtrack for intercepting the circular groundtrack and then generally maintaining a flight path along the circular groundtrack.

80. Exhibit F-3 to this Amended Complaint is a claim chart showing a non-limiting example of how the Phantom 4 Pro meets Claim 1 literally or under the doctrine of equivalents. The components and functionality for the Phantom 4 Pro in this chart are representative of the components and functionality present in all Accused '395 Products. DJI thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '395 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the Accused '395 Products.

81. DJI also indirectly infringes at least Claim 1 of the '395 Patent in violation of 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, and service providers, in the United States with knowledge and the specific intent that its efforts would result in the direct infringement of the '395 Patent. For example, DJI actively induces infringement of the '395 Patent by designing, manufacturing, selling, or distributing the Accused '395 Products and then training its customers on the use of those products and the Point of Interest Mode, including through the creation and dissemination of supporting materials, videos, instructions, product manuals, and technical information. <https://www.youtube.com/watch?v=sGJTUIvU1eE>; <https://fcc.report/FCC-ID/2AHAY-WM3301601>. DJI has stated that its “marketing efforts include . . . preparing instruction videos and user manuals.” *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at ¶ 14 (D. Del. Feb. 24, 2021). As another example, DJI actively induces infringement of the '395 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates, including DJI Creative Studio LLC, DJI Industrial Inc., and DJI Service LLC to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '395 Patent, such as any DJI drone that

includes the “Point of Interest Mode.” As yet another example, DJI actively induces infringement of the ’395 Patent through the creation and dissemination of promotional and marketing materials. <https://www.youtube.com/watch?v=sGJTUIvU1eE>. DJI has stated that its “marketing efforts include preparing marketing videos, . . . providing samples to reviewers of drone products, and preparing for press conferences and marketing events.” *Id.* DJI’s active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the ’395 Patent.

82. DJI has had knowledge of the ’395 Patent since at least June 1, 2020. On that date, a United States Patent and Trademark Office examiner cited the ’395 Patent to DJI in a list of references cited by the examiner during the prosecution of DJI’s U.S. Patent Application No. 14/426,975. Alternatively, at least as of the filing date of this suit, DJI has had knowledge of the ’395 Patent.

83. At least as of the filing date of this suit, DJI has had knowledge of how DJI and third parties infringe the ’395 Patent. The Amended Complaint includes a claim chart explaining how DJI infringes the ’395 Patent. Ex. F-3.

84. DJI also is liable for contributory infringement of the ’395 Patent under 35 U.S.C. § 271(c) by selling or offering for sale the Accused ’395 Products and/or other components (e.g., flight controllers, controllers, etc.) in the United States and importing the Accused ’395 Products and/or other components (e.g., flight controllers, controllers, etc.) into the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the ’395 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. DJI contributes to infringement of the ’395 Patent by, *inter alia*, promotion, and/or

sales of the infringing Accused '395 Products and/or other components (e.g., flight controllers, controllers, etc.) to third parties.

85. DJI's infringement of the '395 Patent has been and continues to be willful. At least since June 1, 2020, DJI has deliberately continued to infringe the '395 Patent despite knowing of the existence of the patent and how DJI infringes. Further, DJI has deliberately continued to encourage others' infringement of the '395 Patent, including by continuing to disseminate its marketing and technical materials to customers.

86. DJI's acts of infringement have injured and damaged Textron Innovations and will continue to injure and damage Textron Innovations. Textron Innovations is therefore entitled to recover from DJI the damages it has sustained as a result of DJI's wrongful and continued acts in an amount to be proven at trial.

87. DJI's infringement has damaged and will continue to damage Textron Innovations irreparably, and Textron Innovations has no adequate remedy at law for its injuries. In addition to actual damages, Textron Innovations is entitled to a permanent injunction enjoining DJI from infringing the '395 Patent.

88. Textron Innovations is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. § 287 in that it has not manufactured, used, sold, or offered for sale in the United States, or imported into the United States, any product that practices the '395 Patent. Textron Innovations is not aware of any licensee that has been confirmed to have manufactured, used, sold, or offered for sale in the United States, or imported into the United States, a product that practices the '395 Patent.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 9,162,752

89. Textron Innovations re-alleges and incorporates herein by reference the allegations contained in Paragraphs 1–52 of the Amended Complaint as if fully set forth herein.

90. DJI has directly infringed, and continues to directly infringe, the '752 Patent in violation of 35 U.S.C. § 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '752 Patent literally or under the doctrine of equivalents. Those products include, for example, any DJI drone and/or controller that uses or facilitates DJI's automatic hover hold functionality, such as the DJI Phantom series (e.g., Phantom 3 Advanced, Phantom 3 Professional, Phantom 3 SE, Phantom 3 Standard, Phantom 4, Phantom 4 Pro, Phantom 4 Pro+, Phantom 4 Advanced, Phantom 4 Advanced+, Phantom 4 RTK), DJI Mavic series (e.g., Mavic Pro, Mavic 2 Enterprise Advanced, Mavic 2 Enterprise Series, Mavic 2 Pro, Mavic 2 Zoom, Mavic Air, Mavic Air 2, Mavic Pro Platinum), Inspire series (e.g., Inspire 1, Inspire 1 Pro, Inspire 1 Raw, Inspire 2, Inspire 2 ProRes, Inspire 2 L), Matrice series (e.g., Matrice 100, Matrice M210, Matrice 210 RTK, Matrice M200 V2, Matrice M210 V2, Matrice M210 RTK V2, Matrice 300 RTK, Matrice 600, Matrice 600 Pro), Air 2S, FPV, the P4 Multispectral, the AGRAS series (e.g., AGRAS MG-1S, AGRAS MG-1S RTK, AGRAS MG-1P, AGRAS MG-1P RTK, AGRAS T16, AGRAS T20), Mini 2, Spark, and controllers (e.g., Cendence, Remote Controller, and Smart Controller) (collectively, the "Accused '752 Products").

91. As a non-limiting example, the Accused '752 Products meet every element of at least Claims 1 and 13 of the '752 Patent literally or under the doctrine of equivalents. Claim 1 recites:

1. A method to control hovering flight of a rotary aircraft, the rotary aircraft having a longitudinal controller and a lateral controller, the method comprising:

defining a first flight envelope having a first groundspeed threshold;

defining a second flight envelope having a second groundspeed threshold, the second flight envelope being defined within the first envelope;

engaging an automatic hover hold with a control law hover hold architecture as the aircraft enters the first flight envelope;

engaging an automatic position hold with a control law position hold architecture as the aircraft enters the second flight envelope; and

interchanging the automatic hover hold and the automatic position hold as the rotary aircraft moves between the first flight envelope and the second flight envelope;

wherein at least one of the engaging the automatic hover hold and the engaging an automatic position hold is performed in response to at least one of the longitudinal controller and the lateral controller being in a detent position.

92. Claim 13 recites:

13. A flight control system for a rotary aircraft, the rotary aircraft having a longitudinal controller, a lateral controller, a directional controller, and a vertical controller, the control system comprising:

a longitudinal loop design having:

a forward speed hold loop;

a pitch attitude loop; and

a pitch rate loop;

wherein the forward speed hold loop automatically engages when the longitudinal controller is returned to a detent position and the aircraft groundspeed is outside a first groundspeed threshold; and

wherein longitudinal maneuverability of the rotary aircraft is controlled by either the pitch attitude loop or the pitch rate loop when the longitudinal controller is out of the detent position;

a lateral loop design having:

a lateral speed hold loop; and

a roll rate loop;

wherein the lateral speed hold loop automatically engages when the lateral controller is returned to a detent position and the aircraft groundspeed is outside the first groundspeed threshold; and

wherein lateral maneuverability of the rotary aircraft is controlled by either the lateral speed hold loop or the roll rate loop when the lateral controller is out of the detent position;

a directional loop design having:

a yaw rate command loop; and

a heading hold loop;

wherein the heading hold loop will be re-engaged automatically during flight in the first groundspeed threshold when the directional controller is in detent; and

a vertical control loop design having:

a vertical speed hold loop; and

an altitude hold loop;

wherein the altitude hold loop automatically engages when the vertical controller is returned to a detent position and the aircraft groundspeed is inside the first groundspeed threshold; and

wherein vertical maneuverability of the rotary aircraft is controlled by the vertical speed hold loop if the vertical controller is out of the detent position.

93. Exhibit F-4 to this Amended Complaint is a claim chart showing a non-limiting example of how the Phantom 4 Pro meets Claims 1 and 13 literally or under the doctrine of equivalents. The components and functionality for Phantom 4 Pro in this chart are representative of the components and functionality present in all Accused '752 Products. DJI thus directly infringed and continues to directly infringe each limitation of at least Claims 1 and 13 of the '752 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the Accused '752 Products.

94. DJI also indirectly infringes at least Claims 1 and 13 of the '752 Patent in violation of 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, and service providers, in the United States

with knowledge and the specific intent that its efforts would result in the direct infringement of the '752 Patent. For example, DJI actively induces infringement of the '752 Patent by designing, manufacturing, selling, or distributing the Accused '752 Products and then training its customers on the use of those products and how to use the automatic hover hold functionality, including through the creation and dissemination of supporting materials, videos, instructions, product manuals, and technical information. <https://youtu.be/PqArVJopoQ4>; <https://fcc.report/FCC-ID/2AHAY-WM3301601>. DJI has stated that its “marketing efforts include . . . preparing instruction videos and user manuals.” *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at ¶ 14 (D. Del. Feb. 24, 2021). As another example, DJI actively induces infringement of the '752 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates, including DJI Creative Studio LLC, DJI Industrial Inc., and DJI Service LLC to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '752 Patent, such as any DJI drone that includes the automatic hover hold functionality. As yet another example, DJI actively induces infringement of the '752 Patent through the creation and dissemination of promotional and marketing materials. <https://youtu.be/PqArVJopoQ4>. DJI has stated that its “marketing efforts include preparing marketing videos, . . . providing samples to reviewers of drone products, and preparing for press conferences and marketing events.” *Id.* DJI’s active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the '752 Patent.

95. At least as of the filing date of this suit, DJI has had knowledge of the '752 Patent and knowledge of how DJI and third parties infringe that patent. The Amended Complaint includes a claim chart explaining how DJI infringes the '752 Patent. Ex. F-4.

96. DJI also is liable for contributory infringement of the '752 Patent under 35 U.S.C. § 271(c) by selling or offering for sale the Accused '752 Products and/or other components (e.g., flight controllers, controllers, etc.) in the United States and importing the Accused '752 Products and/or other components (e.g., flight controllers, controllers, etc.) into the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '752 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. DJI contributes to infringement of the '752 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '752 Products and/or other components (e.g., flight controllers, controllers, etc.) to third parties.

97. DJI's infringement of the '752 Patent has been and continues to be willful. At least since the filing date of this suit, DJI has deliberately continued to infringe the '752 Patent despite knowing of the existence of the patent and how DJI infringes. Further, DJI has deliberately continued to encourage others' infringement of the '752 Patent, including by continuing to disseminate its marketing and technical materials to customers.

98. DJI's acts of infringement have injured and damaged Textron Innovations and will continue to injure and damage Textron Innovations. Textron Innovations is therefore entitled to recover from DJI the damages it has sustained as a result of DJI's wrongful and continued acts in an amount to be proven at trial.

99. DJI's infringement has damaged and will continue to damage Textron Innovations irreparably, and Textron Innovations has no adequate remedy at law for its injuries. In addition to actual damages, Textron Innovations is entitled to a permanent injunction enjoining DJI from infringing the '752 Patent.

100. Textron Innovations is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. § 287 in that it has not manufactured, used, sold, or offered for sale in the United States, or imported into the United States, any product that practices the '752 Patent. Textron Innovations is not aware of any licensee that has been confirmed to have manufactured, used, sold, or offered for sale in the United States, or imported into the United States, a product that practices the '752 Patent.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 10,243,647

101. Textron Innovations re-alleges and incorporates herein by reference the allegations contained in Paragraphs 1–52 of the Amended Complaint as if fully set forth herein.

102. DJI has directly infringed, and continues to directly infringe, the '647 Patent in violation of 35 U.S.C. § 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '647 Patent literally or under the doctrine of equivalents. Those products include, for example, any DJI drone that includes DJI's collision avoidance functionality, such as the DJI Phantom series (e.g., Phantom 4, Phantom 4 Pro, Phantom 4 Pro+, Phantom 4 Advanced, Phantom 4 Advanced+, Phantom 4 RTK), Mavic series (e.g., Mavic 2 Mavic Pro, Mavic 2 Enterprise Advanced, Mavic 2 Enterprise Series, Mavic 2 Pro, Mavic 2 Zoom, Mavic Air, Mavic Air 2, Mavic Pro, Mavic Pro Platinum), Inspire series (e.g., Inspire 2, Inspire 2 ProRes, Inspire 2L), Matrice series (e.g., Matrice M210, Matrice M210 RTK, Matrice M200 V2, Matrice M200 V2, Matrice M210 V2, Matrice M210 RTK V2, Matrice 300 RTK), the P4 Multispectral, the AGRAS series (e.g., AGRAS MG-1P, AGRAS MG-1P RTK, AGRAS T16, AGRAS T20), Spark, Air 2S, and FPV.

103. As a non-limiting example, the Accused '647 Products meet every element of at least Claim 1 of the '647 Patent literally or under the doctrine of equivalents. Claim 1 recites:

1. An apparatus, comprising:

a processing device configured to:

obtain sensor data from one or more sensors associated with a rotorcraft, wherein the one or more sensors are configured to detect information associated with an operating environment of the rotorcraft;

detect an object near the rotorcraft based on the sensor data;

obtain a camera feed from a camera associated with the rotorcraft, wherein the camera feed comprises a camera view of at least a portion of the rotorcraft;

generate a display output based on the camera feed and the sensor data, wherein the display output comprises a visual perspective of the object relative to the rotorcraft;

cause the display output to be displayed on a display device;

determine a physical characteristic of the object based on the sensor data; and

automatically adjust operation of the rotorcraft based on the determined physical characteristic of the object.

104. Exhibit F-5 to this Amended Complaint is a claim chart showing a non-limiting example of how the Mavic 2 meets Claim 1 literally or under the doctrine of equivalents. The components and functionality for the Mavic 2 in this chart are representative of the components and functionality present in all Accused '647 Products. DJI thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '647 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the Accused '647 Products.

105. DJI also indirectly infringes at least Claim 1 of the '647 Patent in violation of 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, and service providers, in the United States

with knowledge and the specific intent that its efforts would result in the direct infringement of the '647 Patent. For example, DJI actively induces infringement of the '647 Patent by designing, manufacturing, selling, or distributing the Accused '647 Products and then training its customers on the use of those products and collision avoidance functionality, including through the creation and dissemination of supporting materials, videos, instructions, product manuals, and technical information. <https://www.youtube.com/watch?v=TSm2OcrnvLc>; <https://www.dji.com/phantom-4-pro-v2>; <https://fcc.report/FCC-ID/2AHAY-WM3301601>. DJI has stated that its “marketing efforts include . . . preparing instruction videos and user manuals.” *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at ¶ 14 (D. Del. Feb. 24, 2021). As another example, DJI actively induces infringement of the '647 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates, including DJI Creative Studio LLC, DJI Industrial Inc., and DJI Service LLC to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '647 Patent, such as any DJI drone that includes the collision avoidance functionality. As yet another example, DJI actively induces infringement of the '647 Patent through the creation and dissemination of promotional and marketing materials. <https://www.youtube.com/watch?v=TSm2OcrnvLc>; <https://www.dji.com/phantom-4-pro-v2>. DJI has stated that its “marketing efforts include preparing marketing videos, . . . providing samples to reviewers of drone products, and preparing for press conferences and marketing events.” *Id.* DJI’s active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the '647 Patent.

106. At least as of the filing date of this suit, DJI has had knowledge of the '647 Patent and knowledge of how DJI and third parties infringe that patent. The Amended Complaint includes a claim chart explaining how DJI infringes the '647 Patent. Ex. F-5.

107. DJI also is liable for contributory infringement of the '647 Patent under 35 U.S.C. § 271(c) by selling or offering for sale the Accused '647 Products and/or other components (e.g., flight controllers, controllers, etc.) in the United States and importing the Accused '647 Products and/or other components (e.g., flight controllers, controllers, etc.) into the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '647 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. DJI contributes to infringement of the '647 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '647 Products and/or other components (e.g., flight controllers, controllers, etc.) to third parties.

108. DJI's infringement of the '647 Patent has been and continues to be willful. At least since the filing date of this suit, DJI has deliberately continued to infringe the '647 Patent despite knowing of the existence of the patent and how DJI infringes. Further, DJI has deliberately continued to encourage others' infringement of the '647 Patent, including by continuing to disseminate its marketing and technical materials to customers.

109. DJI's acts of infringement have injured and damaged Textron Innovations and will continue to injure and damage Textron Innovations. Textron Innovations is therefore entitled to recover from DJI the damages it has sustained as a result of DJI's wrongful and continued acts in an amount to be proven at trial.

110. DJI's infringement has damaged and will continue to damage Textron Innovations irreparably, and Textron Innovations has no adequate remedy at law for its injuries. In addition to

actual damages, Textron Innovations is entitled to a permanent injunction enjoining DJI from infringing the '647 Patent.

111. Textron Innovations is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. § 287 in that it has not manufactured, used, sold, or offered for sale in the United States, or imported into the United States, any product that practices the '647 Patent. Textron Innovations is not aware of any licensee that has been confirmed to have manufactured, used, sold, or offered for sale in the United States, or imported into the United States, a product that practices the '647 Patent.

JURY DEMAND

112. Textron Innovations hereby demands a jury trial on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Textron Innovations respectfully requests that this Court enter:

- A. A judgment declaring that DJI infringed each of the asserted patents;
- B. A judgment awarding damages to Textron Innovations for such infringement, including enhanced damages under 35 U.S.C. § 284 and prejudgment and post-judgment interest, without any limitation by 35 U.S.C § 287;
- C. An injunction against Defendants' infringement of the asserted patents;
- D. An assessment of costs, including awarding Textron Innovations its attorneys' fees under 35 U.S.C. 285 or as otherwise permitted by law;
- E. A judgment awarding all other costs and relief that the Court deems just and proper.

Dated: June 17, 2022

Respectfully submitted,

/s/ Kevin J. Meek

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